



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

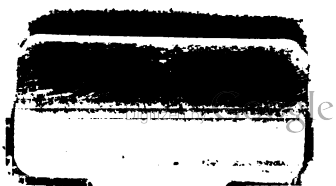
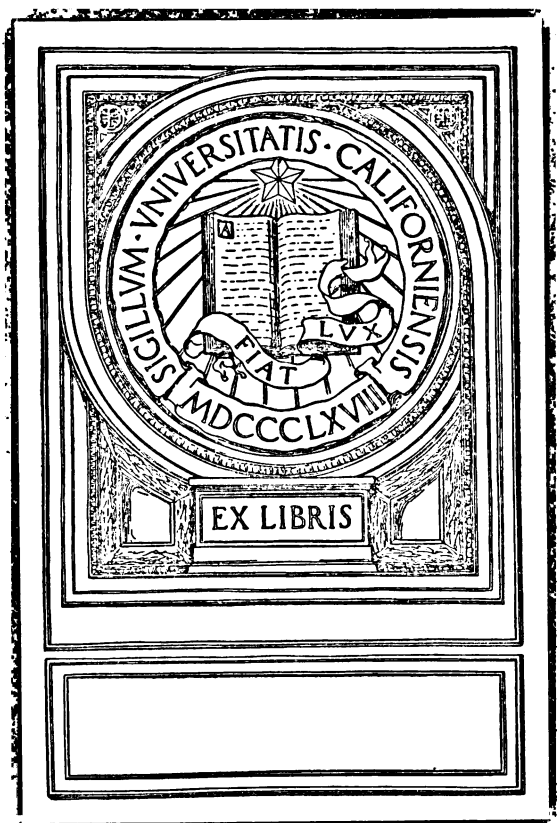
About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

UC-NRLF



\$B 77 460



1573
By Authority of the Commissioners.



OFFICIAL CATALOGUE

OF THE

NATURAL AND INDUSTRIAL PRODUCTS

OF

NEW SOUTH WALES,

FORWARDED TO

THE UNIVERSAL EXHIBITION OF 1878,

AT

PARIS.

LIBRARY
UNIVERSITY OF
CALIFORNIA

SYDNEY:

PRINTED FOR THE COMMISSIONERS, BY THOMAS RICHARDS, GOVERNMENT PRINTER.

1878.

University of California

12795

University of California.

GIFT OF

Hon. John B. Harmon

1873.

By Authority of the Commissioners.



OFFICIAL CATALOGUE

OF THE

NATURAL AND INDUSTRIAL PRODUCTS

OF

NEW SOUTH WALES,

FORWARDED TO

THE UNIVERSAL EXHIBITION OF 1878,

AT

PARIS.

SYDNEY:

PRINTED FOR THE COMMISSIONERS, BY THOMAS RICHARDS, GOVERNMENT PRINTER.

1878.

PARIS UNIVERSAL EXHIBITION OF 1878.

THE NEW SOUTH WALES COMMISSION.

President.

The Honorable Sir JAMES MARTIN, Knight, Chief Justice.

Vice-Presidents.

The Honorable Sir ALFRED STEPHEN, C.B., K.C.M.G., M.P. ;
The Honorable Sir EDWARD DEAS-THOMSON, C.B., K.C.M.G., M.P. ;
The Honorable Sir WILLIAM MACARTHUR, Knight, M.P. ;
The Honorable JOHN HAY, President of the Legislative Council ; and
Sir GEORGE WIGRAM ALLEN, Knight, Speaker of the Legislative Assembly.

Commissioners.

The Honorable JOSEPH DOCKER, M.L.C. ;
WILLIAM MADDISON ALDERSON, Esquire, J.P. ;
JOHN ALGER, Esquire ;
The Reverend CHARLES BADHAM, D.D., Professor of
Classics and Logic in the University of Sydney ;
The Honorable WILLIAM BUSBY, M.L.C. ;
WILLIAM ADAMS BRODRIBB, Esquire, J.P., F.R.G.S.
& F.R.C.L. ;
JOHN JACKSON CALVERT, Esquire, Clerk of the Par-
liaments ;
EDWARD COMBES, Esquire, M.P. ;
HENRY HALLORAN, Esquire, Principal Under Secre-
tary ;
The Honorable THOMAS HOLT, M.L.C. ;
PATRICK ALFRED JENNINGS, Esquire, J.P. ;
EDWARD KNOX, Esquire, J.P. ;
The Honorable WILLIAM MACLEAY, M.L.C. ;
CHARLES MOORE, Esquire, Director of the Botanic
Gardens ;

AUGUSTUS MORRIS, Esquire ;
JOSEPH PAXTON, Esquire, J.P. ;
EDWARD P. RAMSAY, Esquire, Curator of the Aus-
tralian Museum ;
WILLIAM WALLIS, Esquire ;
The Honorable JAMES WHITE, M.L.C. ;
ROBERT DUDLEY ADAMS, Esquire ;
The Reverend WILLIAM BRANWHITE CLARKE, M.A. ;
The Honorable SAMUEL DEANE GORDON, M.L.C. ;
EDWARD SMITH HILL, Esquire, J.P. ;
ARCHIBALD LIVERSIDGE, Esquire, Professor of Geology
and Mineralogy in the University of Sydney ;
JOHN LUCAS, Esquire, M.P. ;
JOHN MACKENZIE, Esquire, Examiner of Coal Fields ;
ELIEZER LEVI MONTEPIORE, Esquire ;
JAMES NORTON, Esquire ;
PROSPER NICHOLAS TREBECK, Esquire ; and
CHARLES SMITH WILKINSON, Esquire, Government
Geological Surveyor.

CHARLES ROBINSON,
Secretary.

Representative Commissioners at Paris.

Executive Commissioner.—EDWARD COMBES, Esq., M.P. ;

WILLIAM FORSTER, Esquire, Agent General for New
South Wales ;
Sir DANIEL COOPER, Bart. ;
The Honorable JOHN FRAZER, M.P. ;
SAMUEL HEBBLEWHITE, Esquire ;
DONALD LARNACH, Esquire ;
JACOB LEVI MONTEPIORE, Esquire ;
R. W. CAMERON, Esquire ;
R. W. FORBES, Esquire ;
A. LIVERSIDGE, Esquire, F.G.S. ;

EDWARD LEVI MONTEPIORE, Esquire ;
Monsieur LOUIS FRANCOIS SENTIS ;
The Honorable THOMAS WARE SMART, M.P. ;
CAVE THOMAS, Esquire ;
The Honorable JOHN BROWN WATT, M.P. ;
PETER NICOL RUSSELL, Esquire ; and
GEORGE RUSSELL, Esquire ;
J. BECKER, Esquire ;
J. R. CARRY, Esquire.

JULES JOUBERT,
Secretary.

Commissioners' Office,
Free Public Library, Sydney.

FIRST GROUP—WORKS OF ART.

Class 1.

OIL PAINTINGS.

Imperial Purple 9th, Champion Shorthorn Bull of New South Wales.

Winner of three first prizes, three special prizes, two silver and one gold cups.

Windsor's Confidence 1st. Rich roan heifer. Winner of first and special prizes at the Metropolitan Exhibition, Sydney, 1875. Woodhouse Edmund B., Mount Gilead, near Sydney.

Class 2.

DRAWINGS OF EVERY KIND.

Drawing in Fusian Etchings. Montefiore. E. L., Sydney.

Class 4.

ARCHITECTURAL DRAWINGS.

Drawing of the Town Hall, Sydney. W. Merriman, M.P., Mayor of Sydney.

One Coloured Perspective Drawing of the Hospital for the Insane, Callan Park, Sydney. James Barnet, Colonial Architect, Sydney.

One Coloured Perspective Drawing of the General Post Office, Sydney. James Barnet, Colonial Architect, Sydney.

One Coloured Perspective Drawing of the Public Offices, Sydney. James Barnet, Colonial Architect, Sydney.

Photographs of Architecture, by James Barnet, Colonial Architect, Sydney.

No. 1. General Post Office, Sydney. Northern Arcade, Granite Columns.

2. Do. do. Northern Arcade.

3. Do. do. Western Entrance.

4. Do. do. Interior of Northern Arcade.

5. Public Offices, do. Showing Scaffolding from N.E.

6. Do. do. Showing Scaffolding from E.

7. Do. do. From North-east.

8. Do. do. From North-west.

9. Do. do. East Door.

10. Do. do. North Door.

11. Do. do. West Door.

12. Lands Offices, do. Showing Scaffolding.

Class 5.

ENGRAVINGS.

Bird's-eye View of Sydney, with enlarged illustrations, showing some of the principal buildings of the city. Samuel Bennett, *Town and Country Journal Office*, Sydney.

Men of Mark in Australia, surrounded by views of public and private buildings. Samuel Bennett, *Town and Country Journal Office*, Sydney.

Class 9.

PRINTING AND BOOKBINDING.

Gibbs, Shallard, & Co., Sydney.

Lithographic Printing.

Account Books.

Binding

Letter-press.

Copper-plate.

Electrotyping.

Thomas Richards, Government Printer, Sydney.

7 Statutes of New South Wales and Index.

1 Mammals of Australia.

1 Orchids, Parts 1, 2, and 3.

2 Statistical Register, and Blue Book.

1 Postage Stamps Album, New South Wales.

1 Kamilaroi Grammar.

1 Climate of N.S.W.

1 Education Report.

1 Essay on New South Wales. Reid.

1 Industrial Progress.

1 Australian Magistrate.

1 Journal of Royal Society.

1 Mining Report, 1877.

1 Snakes of Australia.

Indestructible Vulcanised Stamps—Gardiner & Cool, Sydney.

Class 12.

PHOTOGRAPHS.

Buildings of Sydney (six boxes). Thomas Richards, Government Printer.

1. Sydney in 1803.

2. The Port and City of Sydney, 1872.

3. Government House, showing porch.

4. „ „ front view.

5. Parliamentary Buildings, Macquarie-street.

Class 12—continued.

6. Legislative Assembly Chamber.
7. Colonial Secretary's Office.
8. Custom House.
9. Registrar General's Office.
10. The Treasury.
11. Australian Museum.
12. Free Public Library.
13. Post Office, George-street.
14. Government Printing Office.
15. Observatory.
16. Sydney Branch Royal Mint.
17. Victoria Barracks (men's quarters).
18. Bank of New South Wales.
19. Oriental Bank.
20. Union Bank.
21. Joint Stock Bank.
22. English, Scottish, and Australian Chartered Bank.
23. Bank of Australasia.
24. Commercial Bank.
25. London Chartered Bank.
26. City Bank.
27. Union Club.
28. Australian Club.
29. Victoria Club.
30. Civil Service Club,
31. Mort's Store.
32. Exchange.
33. School of Arts.
34. St. Andrew's Cathedral.
35. Independent Methodist Chapel.
36. St. Patrick's Church.
37. Congregational Church, Pitt-street.
38. Dr. Lang's Church.
39. Mariners' Church.
40. Wesleyan Church (York-street).
41. St. George's Church.
42. Mortuary, Redfern (front view).
43. „ Haslem's Creek (south end).
44. University.
45. Old Stone-pine Trees (Bridge-street).
46. George-street (looking south).
47. St. Paul's College.

Class 12—continued.

48. Argyle Cutting.
49. Botanic Gardens, showing Government House.
50. „ Palms
51. „ Boy with barrow.
52. „ Film cracked on negative.
53. „ Man with spade.
54. „ showing Bay.
55. „ Summer-house.
56. H.M.S. "Galatea" in Farm Cove.
57. Cockatoo Island—"Galatea" in dock.
58. Governor Bourke Statue.
59. Prince Albert's Statue.
60. Exhibition Building.
61. Zig-zag.
62. „
63. Domain Avenue.
64. View in Domain.

Australia Illustrated (two copies). Thomas Richards, Government Printer.

Railway Works and Scenery in New South Wales. The Honorable John Sutherland, Secretary for Public Works, Sydney.

Roads and Bridges in New South Wales. W. C. Bennett, Engineer of Roads, Sydney.

Photographic portraits—Boake, B. C., Sydney.

Photographic portraits.—Greenfeld, Sydney.

Photographs—Aborigines of Australia—Lindt, J. W.

Photographic portraits (six)—Newman, J. Hubert, Sydney.

Photographs—Richards, Thomas, Government Printer, Sydney.

Views in the Blue Mountains—

1. White Rocks (Valley of Grose).
2. Valley of Grose.
3. „ „
4. Mount Victoria.
5. „ „
6. Picton Viaduct.
7. Mount Wilson.
8. „ „
9. „ „
10. Govett's Leap.
11. Kanimbla Pass.
12. Bed of Grose River.

Panorama of Sydney. From Mr. Dibbs's.

„ „ From Blue's Point.

Class 12—continued.

Photographic portraits (seven).

„ Vignettes, one frame—Scott, David, Sydney.

Photograph—Snowball Copper Mine—Sturt, John, Manager, Adelong.

Photograph—Randwick Asylum—Thomas, D. A., Superintendent, Randwick.

Photographs—Album of New South Wales Views,—Turner and Henderson, Sydney.

Photographs of Cattle—Jenkins, R. L., Nepean Towers.

Exhibited by the Commissioners.

University, Sydney.

St. Paul's College, Sydney.

St. John's College, Sydney.

St. Andrew's Cathedral, Sydney.

Exchange, Sydney.

Class 16.

Exhibited by the Department of Mines, Sydney, New South Wales,
Australia.

Geological Maps of the Districts of Hartley, Bowenfells, Wallerawang, and Rydal; by C. S. Wilkinson, L.S., F.G.S., Government Geological Surveyor.

Map of gold-bearing country in the vicinity of Tambaroora, Hill End, the Turon, and Chambers Creek, showing the townships, gold leases, improvement purchases, features, &c., comprised in about 42 square miles, extending from the Dirt Holes Creek on the north, in a strip of country 3 miles wide and 14 long, to Chambers Creek on the south. Scale, 8 chains to an inch.

Map of gold-bearing country in the vicinity of the town of Parkes, showing the townships, gold leases, improvement and conditional purchases, features, &c., comprised in about 18 square miles. Scale: 8 chains to an inch.

Map of gold-bearing country in the vicinity of the town of Forbes, showing the township, gold leases, improvements, and conditional purchases, features, &c., comprised in about 17 square miles. Scale: 8 chains to an inch.

Diagrams showing, in natural size, the thickness of the principal seams of coal worked in the coal fields of New South Wales.

Seven diagrams, showing the character, thickness, and portion mined out of the seams of coal worked at the different collieries in New South Wales.

By John Mackenzie, Esq., F.G.S., Government Examiner of Gold Fields.

From the Surveyor General, Sydney.

Map showing the agricultural areas of New South Wales.

Map showing the mineral areas of New South Wales.

Class 33.**WOOLLEN FABRICS.**

Exhibited by New South Wales Commissioners.

18 pieces of tweed, special fancy.

1 Fancy Plaid.

1 Shawl.

Class 39.**JEWELLERY AND PRECIOUS STONES.****GEM-STONES.**

No special search has been made for gem-stones in New South Wales, and those hitherto found are the result of the casual discoveries of the gold miner.

Collection of New South Wales Gem-stones, exhibited by the New South Wales Commissioners.

(These gems are for sale.)

No.	Name of Specimen.*	Locality of Specimen.
1	Oriental topaz	Mackintyre River, N.E.
2	Sapphires	Two-mile Flat, near Mudgee.
3	Rubies	Do. do.
4	Blue sapphire	Abercrombie Ranges.
5	Moonstone	New South Wales.
6	Three oriental topazes	Two-mile Flat, near Mudgee.
7	Blue topaz (11 oz. 5 dwt. troy)	Gundagai (exhibited by M. Norton, Esq., J.P.)
8	Cat's-eye	Western District.
9	Amethyst	Dubbo.
10	Zircon	Abercrombie Ranges.
11	Olivine	New England.
12	Diamonds (33 rough)	New South Wales.
13	Two apinal rubies	Abercrombie.
14	Barklyite	Two-mile Flat, Mudgee.
15	Four opals	Rocky Bridge Creek, near Trunkey.
16	Rough opal	Do. do.
17	Sapphires (15 cut)	New South Wales.
18	Cairngorm	New England.
19	Six white topazes	Two-mile Flat, near Mudgee.
20	Emerald	Kiandra.
21	Blue topaz	Mackintyre River.
22	Diamonds (7 rough)	New South Wales.
23	Diamonds (6 rough)	Do.
24	Zircon	Abercrombie.
25	Oriental emerald	Cudegong.
26	Cat's-eye	Western District

* The diamonds and gems exhibited are merely stray ones casually met with by the digger, and not the result of systematic work.

- 1 Topaz found on a street in Gundagai, amongst drift used as road metal.
Mr. M. Norton. Weight of topaz, 11 oz. 5 dwt. troy. (For sale after close of Exhibition.)

Exhibited by the Hon. Saul Samuel, C.M.G., M.L.C., Sydney.

- No. 1 ss. Vesicular basalt with cavities containing precious opal, from Rocky Bridge Creek, near Abercrombie, New South Wales. This opal-basalt occurs in immense masses.

Exhibited by Professor A. Liversidge, F.G.S., F.C.S., Sydney University.
Rough gems and gem sands, with accompanying minerals from various parts of New South Wales.

FIFTH GROUP—MINING INDUSTRIES.

RAW AND MANUFACTURED PRODUCTS.

Class 43.

MINING AND METALLURGY.

FOSSILS.

Exhibited by Department of Mines, Sydney. Collection of the chief characteristic fossils illustrative of the principal sedimentary formations of New South Wales; arranged by C. S. Wilkinson, L.S., F.G.S., Government Geological Surveyor.

LOWER PALEOZOIC—SILURIAN.

- 1A. Coralline limestone. Wallerawang.
- 2., „ „ Wellington.
- 3., Favosites. Near Wellington.
- 4., „ „ Yass Plains.
- 5., Favosites gothlandica. Wallerawang.
- 6., Encrinital limestone. Mudgee.
- 7., Coralline limestone. Wallerawang.
- 8., Favosites. Mudgee.
- 9., „ „ Wilbertree, near Mudgee.
- 10., Coralline limestone.
- 11., „ „ Wellington.
- 12., Crinoid. Near Mudgee.
- 13., Orthoceras. Terago, County Argyle.
- 14., Favosites. 6 miles S.W. of Wellington.
- 15., Coral. Gulgong.
- 16., Orthoceras. Near Wellington.
- 17., Tentaculites. 6 miles from Wellington.
- 18., Trilobite. Yass Plains.
- 19., Euomphalus. „
- 20., Favosites. Near Wellington.
- 21., „ Wilbertree, near Mudgee.
- 22., „
- 23., „
- 24., Receptaculites. Yass Plains.
- 25., Receptaculites Clarkei or Australis. Wellington District.

Class 43—continued.

- 26A. Corals. Near Wellington.
- 27 „ „ „
- 28 „ Syringopora. Yass Plains.
- 29 „ Cyathophyllum. Near Wellington Caves.
- 30 „ Orthoceras. Near Molong.
- 31 „ Trilobite. Yass Plains.
- 32 „ Coral. „
- 33 „ Coral. Gulgong.
- 34 „ Trilobite. Yass Plains.
- 35 „ Favosites Goldfussi.

MIDDLE PALÆOZOIC—DEVONIAN.

- 36 „ Lepidodendron nothum. Near Goulburn.
- 37 „ Spirifer, Rhynchonella, &c. Mount Lambie.
- 38 „ Spirifer, &c. Near Goulburn.
- 39 „ Spirifer, &c. Mount Lambie.
- 40 „ Limestone breccia containing corals. Wallerawang.
- 41 „ Spirifer, Rhynchonella, &c. The Gulf, Turon River.
- 42 „ Spirifer. Wolgan Valley.
- 43 „ „ „
- 44 „ Euomphalus. Mount Lambie.
- 45 „ Spirifer, Rhynchonella, &c. Mount Lambie.
- 46 „ Favosites gothlandica. „
- 47 „ Spirifer, Rhynchonella, &c. „
- 48 „ Lepidodendron nothum. „
- 49 „ Encrinite stems. „
- 50 „ Rhynchonella, &c. „
- 51 „ Spirifer. Wolgan Valley.
- 52 „ Pecten, Spirifer, and Rhynchonella. Mount Lambie.
- 53 „ Spirifer, &c. Wolgan Valley.

UPPER PALÆOZOIC—CARBONIFEROUS.

- 54 „ Lepidodendron and Otopteris ovata. Port Stephens.
- 55 „ Knorria. „
- 56 „ „
- 57 „ Lepidodendron. Port Stephens.
- 58 „ Euomphalus, corals, &c. „
- 59 „ Knorria. „
- 60 „ Spirifer, Strophomena, Rhynchonella, &c. Port Stephens.
- 61 „ „ Euomphalus, &c. Port Stephens.
- 62 „ „ Productus, &c. „
- 63 „ „ Strophomena, &c. „

Class 43—continued.

- 64A. Otopteris, &c. Port Stephens.
 65 „ Spirifer, Productus, &c. „
 66 „ Undetermined, Stroud. „
 67 „ Otopteris and Calamites. „
 68 „ Plant stem. Port Stephens.
 69 „ Strophomena. „
 70 „ Euomphalus. „
 71 „ Strophomena. „
 72 „ Strophomena, Spirifer, &c. Northern District.
 73 „ Otopteris ovata. Port Stephens.
 74 „ Fenestella. Northern District.

LOWER COAL MEASURES.

Lower Marine Beds.

- 75 „ Spirifer, &c. Wollombi.
 76 „ Pachydomus and Favosites. Harper's Hill.
 77 „ Pachydomus and Pleurstomaria.
 78 „ Cyathophyllum. Rouchell Brook, County Durham.
 79 „ Pachydomus. Singleton.
 80 „ Orthoceratite. Ravensfield.
 81 „ Spirifer. Ravensfield.
 82 „ Spirifer and Productus.
 83 „ Spirifer. Singleton.
 84 „ Chætetes radians. Singleton.
 85 „ „ „ „
 86 „ Calcareous concretion. „
 87 „ Pachydomus. Harper's Hill.
 88 „ Conularia tenuistriata. Ravensfield.
 89 „ Pachydomus. Ravensfield.
 90 „ Conularia torta. „
 91 „ Spirifer. Wollombi.
 92 „ „ „ „
 93 „ Encrinite stems. Parish of St. Aubin, county Durham.
 94 „ Pecten and Bellerophon. Ravensfield.
 95 „ Avicula. Capertee.
 96 „ Glossopteris and Phyllothea. Anvil Creek.
 97 „ Spirifer, Fenestella, Productus, &c. Quarrybylong.
 98 „ Spirifer. Capertee.
 99 „ „ „ „
 100 „ „ „ „
 100^a „ Harpur's Hill.
 100^b „ „ „
 100^c Pachydomus. „

Class 43—continued.*Upper Marine Beds.*

- 101A. *Inoceramus Mitchelii*. Greta.
- 102 „ *Pachydomus*. Wollongong.
- 103 „ *Productus*, *Fenestella*, and Crinoid stems. Ulladulla.
- 104 „ *Pachydomus*. Jamberoo.
- 105 „ „ „
- 106 „ *Spirifers*. Greta.
- 107 „ *Favosites*. Campbell's Hill.
- 108 „ *Conularia*. Mount Wingen.
- 109 „ *Spirifer* and *Productus*. Marangaroo.
- 110 „ „ „ „
- 111 „ *Spirifer*, *Productus*, &c. Marangaroo.
- 112 „ „ „ „
- 113 „ „ „ „
- 114 „ *Spirifer*. Wollongong.
- 115 „ *Fenestella*. Campbell's Hill.
- 116 „ *Spirifer vespertilio*. Mount Wingen.
- 117 „ *Spirifer*. Mount Wingen.
- 118 „ *Pleurotomaria*. Jamberoo.
- 119 „ *Spirifer*. Jamberoo.
- 120 „ *Conularia torta*. Greta.
- 121 „ *Spirifer*, *Productus*, &c. Campbell's Hill.
- 122 „ *Fenestella*. Campbell's Hill.
- 123 „ *Pecten*. Greta.
- 124 „ *Productus*. Marangaroo.
- 125 „ *Spirifer*. Wollongong.
- 126 „ „ „
- 127 „ *Pleurotomaria*. Jamberoo.
- 128 „ *Spirifer*. Jamberoo.
- 129 „ *Bellerophon*. Wollongong.
- 130 „ *Spirifer*. Jamberoo.
- 131 „ *Pachydomus*. Wollongong.
- 132 „ *Pecten*. Wollongong.
- 133 „ *Pleurotomaria*. Greta.
- 134 „ *Spirifer vespertilio*. Wollongong.
- 135 „ *Spirifer*, &c. Campbell's Hill.
- 136 „ *Pleurotomaria*. Wollongong.
- 137 „ *Spirifer*. Wollongong.
- 138 „ *Spirifer* and *Productus*. Marangaroo.
- 139 „ *Productus*. Campbell's Hill.

Class 43—continued.*Upper Coal Measures.*

- 140A. Phyllothea. Newcastle.
 141,, Glossopteris. „
 142,, „ „
 143,, „ „
 144,, Glossopteris. Wallerawang.
 145,, Phyllothea. Newcastle.
 146,, Vertebraria. Wallerawang.
 147,, Echinostrobus. Bowenfels.
 148,, Phyllothea. Newcastle.
 149,, Undetermined. „
 150,, Glossopteris. Wallerawang.
 151,, „ Newcastle.
 152,, Conifer Stem and Phyllothea. Newcastle.
 153,, Vertebraria Australis. Wallerawang.
 154,, Phyllothea. Newcastle.
 155,, Glossopteris, &c. Wallerawang.
 156,, Vertebraria Australis. „
 157,, Echinostrobus. Bowenfels.
 158,, Sphenopteris. Newcastle.
 159,, Vertebraria Australis. Jamberoo.
 160,, Phyllothea. Newcastle.
 161,, „ „
 162,, „ „
 163,, „ „
 164,, Sphenopteris. Wallerawang.
 164*, „ Bowenfels.
 165,, „ Newcastle.
 166,, „ Wallerawang.
 167,, Cyclopteris. „
 168,, Sphenopteris. „
 169,, „ „
 170,, „ „
 171,, Phyllothea. Newcastle.
 172,, „ „
 173,, Echinostrobus. Bowenfels.
 174,, Glossopteris and Phyllothea Hookerii. Newcastle.
 175,, Phyllothea. Newcastle.

LOWER MESOZOIC—TRIASSIC.*Hawkesbury and Wianamatta Series.*

177. Cleithrolepis granulatus. Railway cutting, Blue Mountain.
 Hawkesbury Series.

Class 43—continued.

178. Columnar sandstone. Botany Heads. Hawkesbury Series.
 179. Phyllothea. Woolloomooloo. Hawkesbury Series.
 180. Pecopteris. Clarence River.
 181. Palæoniscus. Gib tunnel, Southern Railway. Wianamatta Series.
 182. Shells (undetermined). Botany Road. Wianamatta Series.
 183. Palæoniscus. Gib Tunnel. Wianamatta Series.
 184. Pecopteris. Clarence River. „

CAINOZOIC—MIOCENE.

185. Miocene Tertiary Plants. Vegetable Creek.
 186. „ „ „ „ „
 187. „ „ „ „ „
 188. „ „ „ „ „
 189. „ „ „ Clarence District.
 190. „ „ „ „ „
 191. „ „ „ „ „
 192. „ „ „ „ „
 193. „ „ „ „ „
 194. „ „ „ „ „
 195. „ „ „ „ „
 196. „ „ „ Vegetable Creek.
 197. „ „ „ „ „
 198. „ „ „ Newstead, near Inverell.
 199. „ „ „ „ „
 200. „ „ „ County King.
 201. „ „ „ „ „
 202. „ „ „ Newstead, near Inverell.
 203. „ „ „ „ „

CAINOZOIC—PLIOCENE.

204. Tertiary cement with leaves. Gulgong.
 205. Pliocene Tertiary plants. Namoi River.
 206. Pliocene Tertiary plants. „
 207. „ „ „ „ „
 208. „ „ „ „ „
 209. „ „ „ „ „
 210. „ „ „ Gulgong.
 211. „ „ „ „ „
 212. „ „ „ „ „
 213. Fossil wood. Gulgong.
 214. „ „ „ „ „

Class 43—continued.

- 215. Pliocene Tertiary plants. Gulgong.
- 216. " " " "
- 217. " " " "
- 218. " " " "
- 219. " " " "
- 220. Spondylostrobus Smythii. Home Rule.
- 221. Penteune Clarkei. Gulgong.
- 222. Plesiocapparis leptocelyphis. Gulgong.
- 223. Phymatocaryon bivalve. Black lead. Gulgong.
- 224. " Mackayi. Gulgong.
- 225. " Wilkinsonii. "

CAINOZOIC—PLEISTOCENE, AND RECENT.

- 226. Upper jaw of Sthenurus. Gulgong.
- 227. Portion of zygomatic arch of diprotodon. Castlereagh River.
- 228. " ribs of diprotodon. Castlereagh River.
- 229. Tips of lower incisors of the diprotodon. "
- 230. Cap of pelvis bone of diprotodon. Castlereagh River.
- 231. Molars of diprotodon. Castlereagh River.
- 232. Lower jaws of new species of wombat (*Phascolomys Gippsi*).
Castlereagh River.
- 233. Large toe-bone of gigantic kangaroo.
- 234. Portion of femur of diprotodon Australis. Castlereagh River.
- 235. Fragment of shaft of femur of diprotodon Australis. Castle-
reagh River.
- 236.
- 237.
- 238. Left ramus of lower jaw of Bettongia. Wellington Caves.
- 239. Molar teeth of wombat. Wellington Caves.
- 240. Upper lower canine teeth Sarcophilus ursinus. Wellington
Caves.
- 241. Molar tooth of Macropus. Wellington Caves.
- 242. Aboriginal tomahawks. Castlereagh River.
- 243. " " Vegetable Creek.
- 244. Bones encrusted with stalagmite, Bellubula Caves.
- 245. " " " " " "

TIN.

The approximate area of the tin fields in New South Wales is 8,500 square miles. According to the official report of Harrie Wood, Esq., Under Secretary for Mines, the value of the total production of tin to the

Class 43—continued.

end of 1877 amounts to £2,375,950. The tin ore therefore ranks next in importance to gold and coal as a source of wealth to the Colony. The number of miners engaged in raising ore in 1876 was 1,654, and the earnings of each miner is estimated to be £152 15s. 9d., which is considerably greater than the average earnings of gold-miners. The ore is at present chiefly obtained from alluvial deposits, but doubtless the lodes (of which several have been discovered) will ere long be worked, and the annual production will be thereby largely increased. The existence of tin in New South Wales was known for many years, but it was not until 1871 that any attempt was made to turn this mineral to account as a marketable commodity. The most extensive deposits of ore have been found in the northern portion of the Colony, but tin has also been discovered in other districts. The value of the tin obtained in 1872 was £47,703, in 1873 the value amounted to £334,436, and in 1877 to £508,540, the total value of the production to that date being £2,375,950. The ore has hitherto been obtained in the beds of water-courses, and it is separated from the soil by sluicing. In some localities extremely rich deposits of drift tin have been found in the beds of ancient streams, at a depth from 60 to 80 feet below the surface; but it more frequently happens that the overlying soil is only a very few feet in thickness. Valuable lodes or reefs have also been discovered, and in some places crushing machinery has been erected to extract the ore. The profits of tin-mining have been greatly diminished by the reduced price of the metal consequent upon the large additional supply obtained from the Australian fields. The tin-bearing granites of New South Wales belong to the same geological era as those of Derwent and Cornwall. Warden Buchanan reports that many years will elapse before the ground now being worked will be exhausted, and says that he is convinced that the tin fields open a wide scope for the employment of the labouring classes. The tin ores exhibited in the New South Wales Court are very numerous, and show all the different forms in which this mineral has been found in the Colony.

Exhibited by Department of Mines, Sydney. Collection of Tin Ores from New South Wales. Arranged by C. S. Wilkinson, L.S., F.G.S., Government Geological Surveyor.

1. Lode tin. Mann and Timbarra River.
2. „ Butchart Tin Mine, Cope's Creek.
3. „ Gulf Lode Tin-mining Company.
4. „ „
5. „ with Beryl. Gulf Lode Tin-mining Company.
6. „ Gulf Lode Tin-mining Company.

Class 43—continued.

7. Lode tin. Gulf Lode Tin-mining Company.
8. " Butchart Tin Mine, Cope's Creek.
9. " Mole Table-land, near Tenterfield.
10. " Glen Creek.
11. " Mole Table-land, near Tenterfield.
12. " Bismark Mine, Cope's Creek.
13. " Elsmore Tin Mine, New England.
14. " Bolitho Tin Mine, Cope's Creek.
15. " " "
16. " Britannia Tin Mine, near Inverell.
17. " Sutherland's Water, Cope's Creek.
18. " Tenterfield.
19. " Elsmore Tin Mine, New England.
20. " (with fluor spar in quartz), Boundary Tin Mine,
Cope's Creek.
21. " Mole Table-land.
22. " Flagstone Creek, Mole Table-land.
23. " Mole Table-land.
24. " Bingera.
25. Stanniferous cement. O'Daly's Creek, Vegetable Creek.
26. Lode tin. Mole Table-land.
27. " Manaro.
28. " in micaceous granite. Elsmore Tin Mine, Cope's
Creek.
29. " Myall Creek, near Bingera.
30. " Butchart Tin Mine, Cope's Creek.
31. " Bismarck Mine, Cope's Creek.
32. " Mole Table-land.
33. " M'Donald's Lode, The Glen.
34. " Sutherland's Water, Cope's Creek.
35. " Planet Tin Mine, Mole Table-land.
36. " " "
37. " Near Tenterfield.
38. Stanniferous cement, Rose Valley Mine, Vegetable Creek.
39. Lode tin. Tenterfield.
40. " Graveyard Creek, Vegetable Creek.
41. " The Gulf.
42. " M'Master's Lode, Tent Hill.
43. Surface cement. Vegetable Creek.
44. Lode tin. Northern District.
45. Stream tin. Tumbarumba.

Class 43—continued.

46. Stream tin. Spear's and Moore's Tin Mine, Vegetable Creek.
 47. Stanniferous wash dirt. Arden's Mine, Tent Hill.
 48. Stanniferous cement. O'Daly's Mine, Vegetable Creek.
 49. " " "
 50. " Britannia Mine, Cope's Creek.
 51. Stream tin. Gulf Tin-mining Company, Gulf Creek.
 52. " Pride of the Ranges, near Inverell.
 53. " Baal Gammon Tin Mine, Vegetable Creek.
 54. " Y. Waterholes, "
 55. " Rothschild's Mine, "
 56. " Vegetable Creek Mine, "
 57. " Little Britain Tin Mine, "
 58. " Little Wonder Tin Mine, "
 59. " Grampian Hills, "
 60. " Pine Ridge Tin Mine, Cope's Creek.
 61. " Nine-mile Creek, Mole Table-land.
 62. " The Springs, Strathbogie Run, Vegetable Creek.
 63. " Wylie Creek, New England. Assay, 74.4 per cent. tin.
 64. Stream tin. Near Maryland, Queensland Border.
 65. " Rain's Gully, Gulf Creek.
 66. " Britannia Tin Mine, near Inverell.
 67. " Oban.
 68. " Glen Creek.
 69. " Ancient Briton Tin Mine, near Inverell.
 70. " Long Gully, Cope's Creek.
 71. Black sand. Lady Emily Tin Mine, Vegetable Creek.
 72. Stream tin. Great Britain Tin Mine, Vegetable Creek.
 73. " Victoria Tin Mine, Cope's Creek.
 74. " Head of Pond's Creek, near Inverell.
 75. " Wearne's Mine, Cope's Creek.
 76. " Great Britain Tin Mine, Vegetable Creek.

EXHIBITED BY DEPARTMENT OF MINES, SYDNEY.

77. Toad's-eye tin. Grenfell.
 78. Stream tin. Gordon Tin Mine, Vegetable Creek.
 79. " O'Daly's Mine, "
 80. " Pine Ridge Tin Mine, near Inverell.
 81. " Flagstone Creek, Mole Table-land.
 82. " with gold. Tumbarumba.
 83. " Deepsinkers, Vegetable Creek.

Class 43—continued.

84.	Stream tin.	Glen Creek.
85.	"	Black Boy, N.E. Coast.
86.	"	The Gulf, New England.
87.	"	Graveyard Creek, Vegetable Creek.
88.	Grain tin.	Kangaroo Works, Sydney.
89.	Crystalline sulphide of tin.	Kangaroo Works, Sydney.
90.	"	" with iron. "
91.	Refined tin.	Kangaroo Works, Sydney.
92.	Tin ingots.	" "
93.	Lode tin.	Gulf Lode Tin-mining Company.
94.	"	"
95.	"	"
96.	"	"
97.	"	"
98.	"	"
99.	"	"

Collection of Samples of Tin Ore from the New England District, New South Wales. Collected by J. Buchanan, Esq., P.M., Warden.

1.	Stream tin.	Tent Hill Creek, Tent Hill.
2.	"	Lode Creek, Vegetable Creek.
3.	"	Rothchild's Mine, "
4.	"	Vegetable Creek.
5.	"	Lode Creek, "
6.	"	Tent Hill Creek, Tent Hill.
7.	"	Berry's Gully "
8.	"	Surface Hill, The Glen.
9.	"	Highland Home Creek, The Glen.
10.	"	Washpool Creek, Wellington Vale.
11.	"	Rocky Creek, Strathbogie Run.
12.	"	Y Water-holes, Rangers' Valley.
13.	"	Graveyard Creek, Vegetable Creek.
14.	"	Banca Tin-mining Company, Glen Creek.
15.	"	Glen Creek Tin-mining Company "
16.	"	Nine-mile Creek, Glen Elgin, Dundee.
17.	"	Bracken's Gully "
18.	"	Gulf Stream Tin-mining Company, The Gulf.
19.	"	Gulf Creek " "
20.	"	Hart's Gully " "
21.	Coarse stream tin.	The Gulf " "
22.	Stream tin.	Back Gully " "
23.	"	Bald Rock Creek, Table-land.

Class 43—continued.

- | | | |
|-----|--------------------|---|
| 24. | Stream tin. | Byrines's Reef, Table-land. |
| 25. | " | Bullock Swamp, " |
| 26. | " | Rossi's Creek, Glen Creek. |
| 27. | " | Carpet-snake Creek, Table-land. |
| 28. | Coarse stream tin. | Grampian Hills, Vegetable Creek. |
| 29. | Crushed tin. | Elsmore Hills, Inverell District. |
| 30. | Stream tin. | Severn River. |
| 31. | " | Gulf Stream Mining Company, Gulf Creek. |
| 32. | " | Wallaroo Tin " Tent Hill. |
| 33. | " | M'Donald's Mine, Glen Creek. |
| 34. | " | Hill, Brothers & Co., Vegetable Creek. |
| 35. | " | Mount Look-out, Rocky Creek, Strathbogie |
| 36. | " | Rain's Gully, The Gulf. |
| 37. | " | Banca Tin-mining Company, Glen Creek. |
| 38. | " | Vegetable Creek Tin-mining Company, Deep
Lead. |
| 39. | " | Grampian Hills, Vegetable Creek. |
| 40. | " | Messrs. Moore & Speare, " |
| 41. | " | Baal Gammon Tin Mine " |
| 42. | " | Berry's Dry Gully, Tent Hill. |
| 43. | " | Kangaroo Flat, Strathbogie. |
| 44. | " | Highland Home Creek, Table-land. |
| 45. | " | Moore & Speare, Head of Y Waterholes. |
| 46. | " | Six-mile Mine, Ranger's Valley. |
| 47. | " | The Springs, Strathbogie. |
| 48. | " | Gordon's Mine, Vegetable Creek. |
| 49. | " | Graveyard Creek, " |
| 50. | " | Vegetable Creek Tin-mining Company, Deep
Lead. |
| 51. | " | Band of Hope, Cope's Creek. |
| 52. | " | Wilson's Creek (Moore, Anderson & Co.) |
| 53. | " | Great Britain Tin-mining Company, Head of
Vegetable Creek. |
| 54. | " | The Deep Sinkers, Gulf Creek, Vegetable Creek. |
| 55. | " | Seventeen miles from Armidale. |
| 56. | " | Y Waterholes, near Vegetable Creek. |
| 57. | " | Rocky Creek " |
| 58. | " | (Surface). Pine Ridge, " |
| 59. | " | Nine-mile Creek, Glen Elgin. |
| 60. | " | Elsmore Tin Mine, Inverell. |
| 61. | " | Carpet-snake Creek, Table-land. |

Class 43—continued.

62.	Stream tin.	Giant's Den, near Bendemeer.
63.	"	" "
64.	"	" "
65.	"	" "
66.	"	New England.
67.	"	"
68.	"	"
69.	"	"
70.	"	Cope's Creek (very rich claim, excellent tin wash-dirt, 6 feet, very fine) New England.
71.	Surface tin.	(Very fine), New England.
72.	Wash dirt.	Hall's Claim, Vegetable Creek.
73.	"	Vegetable Creek Tin-mining Company (very rich).
74.	Lode tin.	Banks and Lester's Claim, The Gulf, near Vegetable Creek.
75.	"	Newstead, Inverell.
76.	"	Cope's Creek.

Exhibited by New South Wales Commissioners.

Lode tin, from a lode in euritic granite, at the Bolitho Tin Mine, Cope's Creek, New England.

Lode tin, from Glen Creek, J. Machardie, Sydney.

Collection of Tin Ores, from New England, New South Wales.

Butchart, J. H., Mort's Rooms, Pitt-street, Sydney.

35 bags of lumps of tin ore, found on the Dividing Range at the Gulf, northern portion of New England, weight about 30 cwt.

18 glass jars, containing samples of tin ores and wash, from various districts.

The ore branded "Deep-sinkers" is from a property of about 300 acres, situated at about the highest point of the Dividing Range of the Colony, at the Gulf, in the New England District. The ore of this description is formed in irregular leads or patches, at from 1 to 6 feet from the surface. There also is a lode in granite casing upon the property, which at present is only partially opened, and shows from 3 to 7 inches of ore, assaying about 72 per cent. of pure tin. Alluvial ore also exists, at depths varying from 10 to 20 feet from the surface, in a gravel wash of from 1 to 3 feet in thickness.

Class 43—continued.

The ore branded "The Butchart" is from a property of about 200 acres, situated on the mountain ranges in the vicinity of Cope's Creek, in the district of New England.

Upon this property is a reef averaging about 6 inches. It has been opened to about 30 feet by a perpendicular shaft, the lode or reef gradually widening to about 8 inches at the bottom; the ore assaying 74 to 75 per cent. of pure tin.

The glass jars are numbered 1 to 18, and contain specimens from the several tin-bearing districts of New South Wales.

1. From a tributary of Cope's Creek.
2. " Wylie Creek, near the border of Queensland.
3. " wash in which No. 2 is found.
4. Deep-sinkers. Alluvial at the Gulf.
5. Jupiter Tin Mine, near Bundarra, Inverell District.
6. Wash in which No. 5 is found.
7. Vegetable Creek.
8. Wash in which No. 7 is found.
9. Pine Ridge, on slopes and gullies in the mountain.
10. Pine Ridge, top of mountain.
11. Borthwick Ponds, district of New England, near Inverell.
12. Ponds' Gullies, " " "
13. Same district. Found in pipeclay, at from 40 to 50 feet from the surface.
14. Giant's Den, near Bendemeer, the southernmost portion of New England.
15. Same locality.
16. Cope's Creek proper.
17. The alluvial on the Butchart Tin Mine.
18. The Inverell Tin Mine, adjoining the Butchart.

Metallic Tin, exhibited by A. & R. Amos, Pyrmont Tin-smelting Works, Sydney, 600 large ingots refined metallic tin (in usual form of Australian tin); and 620 small ingots refined metallic tin (in special size for retail trade), weighing 25 tons.

Also, 4 cut ingots to show purity and quality; grain tin, tin sticks, weighing 4 cwt. 2 qrs. 3 lbs.

COPPER.

There are several lodes of copper in the Colony, but some of the richest are at present beyond the reach of railway communication. Those which have been hitherto worked vary in thickness from 1 to 5 feet. Analyses

Class 43—continued.

show that they contain from 9 to 49 per cent. of metal, and that the copper is not unfrequently associated with gold, silver, lead, and sulphur. The production of copper has increased in value from £1,400, in 1858, to £307,181, in 1877. Numerous characteristic specimens and some large blocks of copper ore, also about 25 tons of metallic copper in ingots are exhibited. The approximate area of cupriferous country in New South Wales is 6,713 square miles.

Exhibited by Department of Mines, Sydney. Collection of Copper Ores from New South Wales; arranged by C. S. Wilkinson, L.S., F.G.S., Government Geological Surveyor.

100. Carbonate of copper. Armstrong Mine.
101. " " Mitchell's Creek. Assay 9·40 per cent. copper; gold, equal to 4 ozs. 10 dwts. 8 grains per ton.
102. Carbonate of copper. Mitchell's Creek. Assay 12·27 per cent. copper; gold, equal to 1 oz. 2 dwts. 20 grains per ton.
103. Carbonate of copper. Goodrich Mine.
104. " " Belara Mine.
105. " " Peelwood Copper Mine.
106. Sulphide of copper. Wellbank, near Wellington. Assay, 13·39 per cent. copper.
107. Red oxide and carbonate of copper. Mount Hope, Lower Lachlan.
108. Red oxide of copper. Peelwood Copper Mine.
109. Sulphide of copper. Frog's Hole, Parish of Bala.
110. Sulphide and black oxide of copper. Armstrong Mine.
111. Sulphide of copper. Snowball Mine.
112. " " Dundee, New England.
113. " " Clarence River.
114. Carbonate of copper. Goodrich Mine.
115. " " Junction of Cotter and Queanbeyan Rivers.
116. Carbonate of copper. Peelwood Copper Mine.
117. Carbonate and red oxide of copper. Bobby Whitlow's Mine, Bingera.
118. Carbonate of copper. Gordon Brook, Clarence River.
119. Carbonate and sulphide of copper. Three-mile Flat, Welling-ton. Assay, 13·15 per cent. copper.
120. Red oxide of copper and gold. Fitty's Reef, Mitchell's Creek, Lincoln.

Class 43—continued.

121. Red oxide of copper. Bobby Whitlow Mine, Bingera.
122. Black oxide of copper. Belara Mine. Assay, 40 per cent. copper.
123. Native copper, red oxide, and carbonate of copper. Wellington.
124. Sulphide of copper. Goodrich Mine.
125. " " Armstrong Mine. Assay, copper, 18 per cent. ; gold, 7 dwt. per ton ; silver, 3 ozs.
126. Sulphide of copper. Narragal, County Gordon.
127. " " Wiseman's Creek. Assay, 11·30 per cent. copper.
128. Carbonate of copper. Wiseman's Creek. Assay, 16·72 per cent. copper.
129. Gossan. Mitchell's Creek.
130. Carbonate of copper. South Wiseman's Creek.
131. " " Milbourne Creek.
132. Red oxide and carbonate of copper. Peelwood (depth 40 fathoms). Assay, 21·38 per cent. copper.
133. Red oxide and carbonate of copper. South Wiseman's Creek. Assay, 27·06 per cent. copper.
134. Red oxide and carbonate of copper. Frog's Hole, Parish of Bala,
135. Black oxide of copper. Junction of Cotter and Queanbeyan Rivers.
136. Black oxide of copper. Junction of Cotter and Queanbeyan Rivers.
137. Red oxide and carbonate of copper. Armstrong Mine. Assay, 33 per cent. copper.
138. Red oxide of copper. Belara Mine. Assay, 39 per cent. copper.
139. Black oxide of copper. Bobby Whitlow Mine, Bingera.
140. Carbonate of copper, &c. Between Condobolin and Parkes.
141. Sulphide of copper. Armstrong Mine. Assay, 32·7 per cent. copper.
142. Sulphide of copper. Near Bingera.
143. " " Between Condobolin and Parkes.
144. " " Ironclad Reef, Cargo. Assay, 23·16 per cent. copper.
145. Native copper. Hurley and Wearne's Mine, Wellington District.
146. Sulphide of copper. Between Condobolin and Parkes.

Class 43—continued.

147. Carbonate of copper. Armstrong Mine. Assay 28·7 per cent. copper.
148. Carbonate of copper. Cobar.
149. " " Junction of Cotter and Queanbeyan Rivers.
150. Carbonate of copper. Cobar.
151. " " Copabella, Southern District.
152. Red oxide and carbonate of copper. Apsley. Assay, 18·72 per cent. copper.
153. Sulphide of copper. Wellbank. Assay, 13·39 per cent. copper.
154. Red oxide and carbonate of copper. Cow Flat Mine, near Bathurst.
155. Sulphide and black oxide of copper. South Wiseman's Creek.
156. Red oxide of copper. Milburn Creek.
157. Carbonate and red oxide of copper. Hurley and Wearne's Mine, near Wellington.
158. Carbonate of copper. Belara Mine, depth 87 feet.
159. Black oxide and sulphide of copper. Apsley. Assay, 18·72 per cent. copper.
160. Copper ingot. Goodrich Mine.
161. " " Carangera, near Bathurst.
162. Black oxide and sulphide of copper. South Wiseman's Creek.
163. Sulphide of copper. Solferino.
164. " " Jacqua Mine, Nerrimunga.
165. " " Molong.
166. Native copper. Peabody Mine, County Ashburnham.
167. Carbonate of copper and galena. Wellingrove.
168. Carbonate of copper. Frog's Hole, parish of Bala.
169. " " Balara.
170. Carbonate and sulphide of copper. Bobby Whitlow's Mine, Bingera.
171. Carbonate of copper. Gordon Brook, Clarence River.
172. Gossan. Belara Mine.
173. Sulphide of copper. Wellingrove.
174. " " Wellbank. Assay, 13·39 per cent. copper.
175. Sulphide and carbonate of copper. Apsley.
176. Black oxide and grey sulphide of copper. Millburn Creek. Assay, 25 per cent. copper.
177. Red oxide and carbonate of copper. Gordon Brook, Clarence River.

Class 43—continued.

178.	Sulphide of copper.	Millburn Creek.
179.	" "	Goodrich Mine.
180.	" "	Hurley and Wearne's Mine, Wellington.
181.	Sulphide of copper and galena.	Goodrich Mine.
182.	Sulphide of copper.	Cow Flat.
183.	" "	Gordon Brook, Clarence River.
184.	Sulphide and carbonate of copper.	Jones' Mount, Tuena.
185.	Black oxide of copper.	Belara Mine.
186.	Carbonate of copper.	Near Oberon.
187.	Sulphide of copper.	Snowball Mine.
188.	" "	" "
189.	" "	" "
190.	" "	" "
191.	" "	" "
192.	" "	" "
193.	" "	" "
194.	" "	" "
195.	" "	" "
196.	" "	" "
197.	" "	Prince of Wales Copper Mine, Bingera.

Exhibited by the Hon. Saul Samuel, C.M.G., M.L.C., Sydney.

Block of copper ore, weighing $4\frac{1}{2}$ cwt., from Cow Flat Copper Mine, New South Wales.

Copper ores from the Coombing Copper Mine, New South Wales.

Exhibited by S. L. Bensusan, Sydney.

Large block of yellow sulphuret of copper, from the Frogmore Copper Mine, New South Wales.

Exhibited by Josiah Holman, Manager, Cadia, New South Wales.

Four pieces yellow sulphuret of copper, from 25 fathom level, Cadia Copper Mine.

One piece of iron ore from the outcrop of a huge lode.

A large block of yellow sulphuret of copper, from depth 85 feet, Snowball Copper Mine, near Gundagai, New South Wales. Exhibited by John Sturt, Manager for the Snowball Copper Mining Company.

Exhibited by the New South Wales Commissioners.

Copper, 3,973 ingots, weighing 24 tons, 19 cwt. 2 qrs. 21 lbs., from the Esk Copper Smelting Works.

Class 43—continued.

IRON.

Important deposits of iron ore are found in close proximity to coal and limestone in several parts of the Colony. Furnaces, rolling-mills, &c., have recently been erected for the conversion of pig iron into malleable iron ; and it is expected that the demand for iron in the Colony will be supplied by metal locally produced. *Hæmatite*, magnetic, chrome, and other iron ores are shown in the mineral collection. The ore found at Mittagong, in the Southern district, contains about 66 per cent. of iron. Speaking of the deposits of iron ore at Wallerawang, Professor Liversidge says—"They contain two varieties of iron—magnetite, or the magnetic oxide of iron, and the brown hæmatite or goethite—the hydrated oxide ; then in addition to these there are deposits of the so-called clay bands which are interstratified with the coal measures. These clay bands are not what are usually known as clay iron ores in England. They are brown hæmatites, var. limonite, while the English clay iron ores are impure carbonates of iron, which seldom contain much more than 30 per cent. of metallic iron, against some 50 per cent. contained by the hæmatites. A highly ferruginous garnet accompanies the veins of magnetite ; this garnet is very rich in iron, and it will probably be found advantageous to smelt it with the other ores, not only on account of the large percentage of metal which it contains, but also on account of the increased fluidity it would impart to the slag." The approximate area of iron ore deposits is 1,400 square miles. The value of the iron raised to 1877 amounts to £30,197.

Exhibited by Department of Mines, Sydney. Collection of Iron Ores from New South Wales ; arranged by C. S. Wilkinson, L.S., F.G.S., Government Geological Surveyor.

- 200. Magnetic oxide of iron. Wallerawang.
- 201. Brown hæmatite. Berrima.
- 202. " "
- 203. Magnetic oxide of iron. Wallerawang. Analysis, 37·84 to 51·2 per cent. metallic iron.
- 204. Clayband iron ore. Wallerawang.
- 205. Magnetite. Solferino.
- 206. Magnetic oxide of iron. Devonian beds, Mount Lambie.
- 207. Magnetic iron. Burra Burra, Parkes District.
- 208a. Brown iron ore. Coal Creek, Wallerawang.
- 208. Magnetite. Wallerawang.
- 209. Micaceous and magnetic iron. Near Mount Lambie.
- 210. Clayband iron ore. Jamberoo.

Class 43—continued.

211. Iron ore garnet rock. Devonian Beds, Wallerawang.
Analysis, 21·05 per cent.
212. Brown hæmatite. Wallerawang.
213. " "
214. " Jamberoo.
215. Magnetite. Near Binalong.
216. Clayband iron ore. Upper Coal Measures, Wallerawang.
217. Hæmatite. Cooyal.
218. Brown hæmatite. Wallerawang.
219. " " Analysis, 88·84 to 51·2 per cent.
220. Clayband iron ore. Vale of Clwydd, Lithgow Valley.
221. Ironstone. Below Hawkesbury Rock, Broughton Vale.
222. Brown hæmatite. Wallerawang.
223. Iron ore. Burra Burra. Parkes District.
224. Hæmatite. Near Cooyal.
225. Clayband iron ore. Lithgow Valley Iron Co., Lithgow Valley.
226. Brown iron ore. Crother's Coal Seam, Wallerawang.
227. Goethite, fibrous oxide of iron. Goulburn.
228. Magnetic iron. Wellington.
229. Brown hæmatite. Molong.
230. Iron ore. Burra Burra, Parkes District.
231. Stalactitic iron. Lithgow Valley.
232. Specular and brown oxide of iron. Parish of Ponsonby, near Bathurst.
233. Iron ore garnet rock. Wallerawang.
234. Brown hæmatite. Gobondry Range, Parkes District.
235. Limonite. Vegetable Creek.
236. Micaceous iron. Southern District.
237. Iron castings. Fitzroy Iron Works.
238. " "
239. " "
240. Bar iron. Lithgow Valley Iron Works.
241. " " " "
242. Pig iron. " " "
243. " Fitzroy Iron Works.
244. Clayband iron ore. Lithgow Valley.

Exhibited by New South Wales Commissioners.

Iron.—298 bags, weighing 10 tons, of pig iron, from Lithgow Valley Iron Smelting Company, New South Wales.

Class 43—continued.

- 271 Galena. Near Murrumburrah. Assay, silver 6 oz. 18 dwts.
20 grs. per ton; lead, 71·84 per cent.
- 272 Antimony. Gineroi, 10 miles N.E. from Bingera.
- 273 Arsenical pyrites. Lunatic.
- 274 Arsenic. Lunatic.
- 275 " "
- 276 Galena. Eurongilly, Murrumbidgee District.
- 277 Arsenical pyrites and galena. Strickland's Reef, near Forbes.
Assay per ton, gold, 1 oz. 10 dwts. 1 gr.; silver, 1 oz.
19 dwts. 4 grs.
- 278 Mispickel, arsenical pyrites. Lunatic.

Exhibited by New South Wales Commissioners.

21 Ingots or 10 cwt. 16 lbs. of star antimony.

GOLD.

The weight of gold obtained to the end of 1877 was 8,725,119·68 ounces, of the value of £32,486,332 Os. 7d. Except in some few localities, quartz veins have not been worked to a great depth, and the auriferous resources of the Colony have scarcely been touched. Alluvial lands have in some instances been worked to a depth of 200 feet, and there are the strongest indications of deep leads in various parts where no attempt has been made to work them. Gold-mining, as hitherto carried on, has been principally confined to the working of river beds and shallow alluvial claims. Extensive areas of country are known to be auriferous, and there is still ample scope for the remunerative employment of a large population in both alluvial and quartz mining. The poor success which has often attended the working of quartz veins is largely attributable to ill-judged speculation, inexperience, and the absence of proper ore-separating and other mining appliances. The Rev. W. B. Clarke, referring to a recent visit to the Western district, says that he "passed over many miles of country in which the rocks that belong to a golden area yet remain in their original condition, and will so remain until some fortunate adventurer stumbles by accident on a tangible encouragement." Thirty-three samples of gold from the Northern, Southern, and Western Gold Fields, rich specimens of auriferous quartz from the "Star of Peace" and other mines, and a model representing the total production of gold in New South Wales, are shown in the Exhibition.

Class 43—continued.

The approximate area included within the proclaimed Gold Fields is 35,500 square miles ; but from the geological formation of the country, it is believed that the area in which payable gold deposits will be found will be greater than that now stated. The returns from the alluvial mines show that the average yield from the wash-dirt was 1 dwt. 23·14 grs. of gold per ton ; and from the quartz mines the average yield of the crushings gave 13 dwts. 8·20 grs. per ton. From some of the reefs at Hill End, crushings gave at the rate of from 30 to 2,100 ounces of gold per ton ; specimens of gold in quartz from this locality are exhibited. It is known that much gold passes away in the tailings, and is lost in consequence of the imperfect appliances at present employed for the treatment of auriferous pyrites.

Exhibited by Department of Mines, Sydney. Collection of Auriferous Specimens from New South Wales, arranged by C. S. Wilkinson, L.S., F.G.S., Government Geological Surveyor.

- 300 Auriferous quartz. North Garibaldi Reef, Solferino.
- 301 " " Lac-ma-lac, near Tumut.
- 302 Auriferous pyritous quartz. Snob's Reef, Big Hill, Major's Creek.
- 303 Auriferous pyritous quartz. Snob's Reef, Big Hill, Major's Creek.
- 304 Auriferous quartz. Annett's Mine, Adelong ; depth, 700 feet ; yield, 6 ozs. per ton.
- 305 Auriferous quartz. Adelong.
- 306 " " Mitchell's Creek, near Wellington.
- 307 " " Major's Creek, near Braidwood.
- 308 Burnt quartz. Lady Belmore Reef, near Braidwood ; yield, 12 ozs. per ton.
- 309 Auriferous pyritous quartz. Dargue's Reef, Spring Creek, Enterprise Company.
- 310 Quartz containing copper and iron pyrites, galena, &c. Snob's Reef, Major's Creek.
- 311 Quartz containing Copper and Iron Pyrites, Galena, &c. Snob's Reef, Major's Creek.
- 312 Auriferous quartz. Cargo.
- 313 " " Prospecting Claim, Manton's Reef, Nerrimunga.
- 314 Auriferous quartz. Eureka Claim, Nerrimunga.
- 315 Model of nugget found at Wapping Butcher Lead, Parkes ; weight, 19 grs. 10 dwts.

Class 43—continued.

- 316 Auriferous quartz and calcite. Garibaldi Reef, Solferino.
- 317 Model of the first large nugget found in New South Wales, at Ophir Creek.
- 318 Gold in calcite. Crow Mountains, Barraba.
- 319 Auriferous quartz. Prospectors Band of Hope, Solferino.
- 320 " " Snob's Claim, Major's Creek, near Braidwood.
- 321 Auriferous quartz. Adelong.
- 322 " " Pride of Clarence Reef, Solferino.
- 323 " " Trunkey Creek Quartz-mining Company, Trunkey; depth, 300 feet.
- 324 Auriferous brown oxide of iron. Alfred Town, near Wagga.
- 325 Auriferous sandstone reef. Cowarbee, Murrumbidgee district.
- 326 Auriferous quartz. Kangaroo Reef, Nerrimunga.
- 327 " " Caledonian Reef, Leaning Oak Creek.
- 328 " " Bowling Alley Point, Peel River.
- 329 " " Fletcher's Reef, Adelong.
- 330 " " Bonnie Dundee Reef, Parkes.
- 331 " " Depth, 20 feet; Pride of Clarence Reef, Solferino.
- 332 Auriferous quartz. Lloyd's Block, Black Reef, Trunkey.
- 333 " " Pine Ridge Wilson's, Trunkey.
- 334 " " Eddington Line, Trunkey.
- 335 " "
- 336 " " Adelong United Mine, from C. H. Humphries, Esq.
- 337 Auriferous quartz. Adelong United Mine, from C. H. Humphries, Esq.
- 338 Auriferous quartz. Adelong United Mine, from C. H. Humphries, Esq.
- 339 Auriferous quartz. Great Victoria Mine, Adelong; 800 feet level.
- 340 Auriferous quartz. Great Victoria Mine, Adelong; 800 feet level.
- 341 Auriferous quartz. United Miners, Snob's Reef, near Braidwood.
- 342 Auriferous quartz. Fletcher's Reef, Victoria Extended; 240 feet depth; vein, 1 foot; yield, $2\frac{1}{4}$ ozs. per ton.
- 343 Gold in cleavage planes of clay slate. Cowarbee, Murrumbidgee district.

Class 43—continued.

- 344 Auriferous pyritous quartz. Pioneer Line of Reef, Trunkey ; depth, 240 feet.
- 345 Auriferous pyrites. Old Reef, Adelong, depth 28 ft. vein, 1 ft. thick ; yield 2 ozs. per ton.
- 346 Auriferous quartz. North William's Claim, Adelong, 240 ft. deep ; yield, 4 ozs. per ton.
- 347 Auriferous quartz, with sulphurets of iron, lead, and zinc, Snob's claim, Major's Creek, near Braidwood.
- 348 Auriferous cement, Carboniferous age, Tallawang, Clough's Gully.
- 349 Auriferous quartz. Spring Creek, near Braidwood.
- 350 " " Pembroke Reef, near Trunkey ; depth, 120 feet.
- 351 Model of a nugget of gold found at Canadian Diggings, near Gulgong.
- 352 Auriferous pyritous quartz. Spring Creek, near Braidwood.
- 353 Auriferous quartz. Reef 2 ft. thick, Major's Creek, near Braidwood.
- 354 Auriferous quartz. Victoria Extended Adelong, 250 ft. deep ; vein, 2 ft. ; yield, 3 ozs. per ton.
- 355 Auriferous quartz. Blackman's Reef, Oberon.
- 356 Gold in copper ore. Kaiser Mine, Mitchell's Creek, county Lincoln.
- 357 Auriferous pyritous quartz. Pioneer Line, Trunkey.
- 358 " quartz. Lac-ma-lac, near Tumut ; yield 18 ozs. per ton.
- 359 Micaceous granite, containing gold. Araluen ; yield about 2 dwts. per ton.
- 360 Auriferous quartz. Barmedman (Ada Reef).
- 361 " Lachlan district.
- 362 Auriferous cement. Pliocene drift, Gulgong.
- 363 Quartz with gold, zinc, and galena ; depth, 20 feet. Consul's Reef, Grenfell.
- 364 Auriferous quartz. North William's Mine, Adelong.
- 365 " Prospectors' Claim, Golden Star Reef, Walcha district, New England. Collected by J. Buchanan, Esq., P.M., Warden.
- 366 Auriferous quartz. Prospectors' claim, Golden Star Reef, Walcha district, New England. Collected by J. Buchanan, Esq., P.M., Warden.

Class 43—continued.

- 367 Auriferous quartz. Collected by J. Buchanan, Esq., P.M.,
Warden.
- 368 Auriferous quartz. Collected by J. Buchanan, Esq., P.M.,
Warden.
- 369 Auriferous quartz. Collected by J. Buchanan, Esq., P.M.,
Warden.
- (Specimens 365 to 369 are for sale.)
- 370 Auriferous quartz. Kaiser, Mitchell's Creek, Lincoln.

Exhibited by the New South Wales Commissioners.

Samples of Gold from Gold Fields of New South Wales, Australia. (Specimens for sale after close of Exhibition) :—

1. Auriferous quartz
2. "
3. " from Hill End.
- 4, 5. " from Gulgong. On the Gulgong Gold Field
over *sixteen* (16) *tons* of gold were obtained (chiefly from
alluvial deposits) in seven years.
6. Auriferous quartz from Adelong. On the Adelong Gold Field is
the deepest quartz mine—the "Great Victoria Gold
Mine"—in New South Wales; it is 820 feet deep. The
quartz reef occurs in hornblendic granite.
- 7 to 29. Auriferous quartz.
30. Auriferous pyrites, from Ravenswood.
31. Auriferous quartz, very ferruginous.
- 32 to 40. " from Golden Point.
- 41 to 46. " from Hawkins' Hill. This quartz has yielded
from 30 ounces to 2,100 ounces of gold per ton. Although
the yield from this quartz has been very large, yet, owing
to the presence of pyrites and other associated minerals,
much of the gold is lost by the saving appliances at
present used; this has been proved by the yield from the
tailings which were sent to England for treatment.

SAMPLES of New South Wales Gold assayed at Royal Mint, Sydney. Exhibited by New South Wales Commissioners.

No.	Locality.	Gross weight.	Loss per cent. in melting.	Weight assayed.	Assay Report.		Standard Gold.	Fine Silver.	Value per ounce after melting.
					Gold in 10,000 parts.	Silver in 1,000 parts.			
1	Tamworth	2·00	3·12	1·93	9160	80	1·928	·15	£ s. d. 3 18 1
2	"	2·00	4·24	1·92	9160	77	1·918	·15	3 18 1
3	Armidale	2·00	3·19	1·94	7495	242	1·586	·47	3 4 8
4	"	2·00	2·21	1·96	8895	103	1·902	·20	3 16 0
5	Goulburn	2·00	2·51	1·95	9485	43	2·018	·08	4 0 9
6	Grafton	2·00	2·82	1·94	9000	95	1·905	·18	3 16 10
7	Stroud	2·00	1·83	1·96	8500	143	1·817	·28	3 12 9
8	Tenterfield	2·00	2·00	1·96	8865	106	1·895	·21	3 15 9
9	Sofala	2·00	2·40	1·95	9435	52	2·007	·10	4 0 5
10	"	2·00	1·37	1·97	9220	70	1·981	·14	3 18 7
11	Bathurst	2·00	1·92	1·96	9300	67	1·988	·13	3 19 3
12	Hargraves	2·00	1·33	1·97	9480	45	2·037	·09	4 0 8
13	"	2·00	·97	1·98	9480	48	2·048	·09	4 0 8
14	Hill End	2·00	2·43	1·95	9405	54	2·001	·10	4 0 1
15	"	2·00	3·00	1·94	9430	46	1·996	·09	4 0 3
16	"	2·00	1·84	1·96	9445	51	2·019	·10	4 0 5
17	Mudgee	3·00	1·55	2·95	9275	68	2·985	·20	3 19 1
18	"	2·00	8·86	1·82	9185	72	1·823	·13	3 18 3
19	Gulgong	2·00	1·26	1·98	9335	60	2·016	·12	3 19 6
20	Young	2·00	1·11	1·98	9480	48	2·048	·09	4 0 9
21	Kiandra	2·00	3·07	1·94	9265	69	1·961	·13	3 19 0
22	Braidwood	2·00	1·96	1·96	9575	38	2·047	·07	4 1 5
23	Araluen	2·00	1·34	1·97	9240	69	1·986	·13	3 18 9
24	"	2·00	1·44	1·97	8950	99	1·928	·19	3 16 5
25	Adelong	2·00	1·29	1·98	9430	52	2·037	·10	4 0 4
26	Pyramul	2·00	1·12	1·98	9545	43	2·062	·08	4 1 3
27	Bathurst	2·00	1·74	1·97	9280	59	2·016	·12	3 19 11
28	Orange	2·00	3·00	1·94	9520	41	2·015	·08	4 1 1
29	"	2·00	2·13	1·96	9285	68	1·985	·13	3 19 1
30	"	2·00	3·93	1·92	8305	151	1·739	·23	3 11 2
31	Stony Creek	2·00	2·19	1·96	9425	50	2·015	·10	4 0 3
32	Parkes	2·00	2·48	1·95	8980	96	1·910	·19	3 16 8
33	"	3·00	1·54	2·97	9250	68	2·997	·13	3 18 9
		68·00		66·44			66·611	4·84	

Class 43—continued.

Exhibited by the New South Wales Commissioners.

Gold in quartz and slate, from the "Star of Peace Gold Mining Company's" Reef, Hill End, New South Wales. (For sale after close of Exhibition.)

COAL.

The approximate area of the carboniferous strata is estimated at 23,950 square miles. The principal coal beds exist along the coast to the north and south of Sydney. The mines first opened are situate in the immediate vicinity of Newcastle, and it is from there that the Colony obtains its largest supply. The coal lies near the surface, and the greatest depth to which shafts have yet been sunk is less than 500 feet. In many districts the coal crops out on the face of the hills, and can be cheaply got by driving tunnels. The cost of mining is from 3s. to 5s. 6d. per ton. The coal-shipping facilities at Newcastle are by staiths and steam cranes, whose total loading capabilities have been increased to 12,300 tons per diem. Experiments with the New South Wales coal at the Royal Arsenal Woolwich, in 1858 and 1859 showed that for steam purposes it was only 7 per cent. inferior to the best Welsh coal; and that, as regards the manufacture of gas, it produces upwards of 9,000 feet per ton, with an illuminating power 24 per cent. greater than the English variety known at Whitworth. The Government Director of the Indian Railway Companies, in his Report to the Secretary of State for India (1868-9), refers to the quality of Australian coal. He says: "It has been tried on some of the lines of Western India, and has been well reported on. The experience of the Locomotive Superintendent of the Scinde Co. is that it is equal to Welsh coal in all respects; its evaporation power is nearly equal to Welsh coal, and the consumption per mile is less. The price hitherto has been under that of English Welsh coal." The Government Examiner of Coal Fields (Mr. John Mackenzie, F.G.S.) estimates that one seam of coal, after allowing one-third for loss and waste in getting, will yield 84,208,298,667 tons. It has been ascertained by the Rev. W. B. Clarke and the Examiner of Coal Fields that there are in the upper coal measures at least sixteen seams of coal, each more than 3 feet thick. One seam whose out-crop is near Stroud, described by the late Mr. W. Keene, is more than 30 feet thick, as tested by several trial pits sunk on the dip side; and another, whose outcrop is near Wallerawang, recently examined by Archibald Liversidge, Esq., Professor of Geology in the University of Sydney, is 17 feet 6 inches thick. The principal seam from which coal is now being obtained is from 8 to 10 feet thick, the coal being free-burning and bituminous,—suitable for household, steam, smelting, gas, and blacksmith's purposes. Mr. R. W. Moody, mining engineer, gives

Class 43—continued.

the following description of coal land on the south-eastern coast :—“The five seams of coal contained in this 600 acres will yield 31,250,000 tons of coal, which will supply a vend of 1,000 tons a day for over 100 years ; and this is independent of the exceedingly rich bed of kerosene oil shale, which is sufficient to yield 2,000 gallons of refined oil per week for over seventy-two years. The position of all the seams is so favourably situated that the coal from each can be got by tunnelling into the mountain range, and conveyed to the proposed railway terminus below by self-acting inclined planes.” Writing of the upper coal measures in the Western district, the Government Geologist (C. S. Wilkinson, Esq., L.S., F.G.S.) says : “They are 480 feet thick, resting conformably on the marine beds of the lower coal measures, and overlaid by more than 500 feet of Hawkesbury sandstone. Eleven seams of coal have been counted in them ; the lowest, which is 10 feet thick, lies about 25 feet above the marine beds, and is the same seam worked by the Bowenfels, Eskbank, Lithgow Valley, and Vale of Clwydd Collieries. This seam of coal crops out on the surface on the railway line near Bowenfels. It dips at a low angle of 3 to 5 degrees to the north-east, and is therefore easily worked ; and as it passes under the vast extent of mountain ranges to the north and east, it will be inexhaustible for generations to come.” The production of coal has increased very rapidly of late years. In 1833, 328 tons were raised, and in 1877, 1,389,871 tons, the value of the last-named year's production being £832,225 13s. Nearly 900,000 tons were exported to the other Australian Colonies and New Zealand, to China, Japan, and India, Mauritius, New Caledonia, and San Francisco. Several seams of cannel coal have been found, and the produce of two of them is retorted for the manufacture of kerosene oil. Their thickness varies from 2 to 5 feet. The Hartley shale yields 160 gallons of crude oil, or 18,000 cubic feet of gas per ton, with an illuminating power equal to forty candles. The total production of coal to December 31st, 1877, was 17,426,797 tons, of the value of £9,110,283 15s. 8d., and of petroleum oil shale 137,299 tons, of the value of £371,432 10s. Sections of the coal seams worked in the Northern, Western, Southern, and Hunter River Coal Fields are exhibited, and also samples from several of the seams of petroleum oil coal.

Exhibited by Department of Mines, Sydney. Specimens of Coal from New South Wales. Collected by John Mackenzie, F.G.S., Government Examiner of Coal Fields.

371. Splint coal. Anvil Creek Colliery ; seam 14 ft. 6½ in. thick.

372. Bituminous coal. Co-operative Colliery, Wallsend, near Newcastle ; seam 10 ft. 2 in. thick, and about 8 ft. 5 in. worked.

Class 43—continued.

- 373. Bituminous coal. Ferndale Colliery, Tighe's Hill, near Newcastle; seam about 12 ft. thick.
- 374. Bituminous coal. Newcastle Coal-mining Co., Burwood, near Newcastle; seam 10 ft. 5 in. thick.
- 375. Bituminous coal. Waratah Colliery, near Newcastle; seam averages 10 ft. thick.
- 376. Bituminous coal. Newcastle Wallsend Colliery; seam averages 8 ft. 5 in. thick, 7 ft. 6 in. worked.
- 377. Bituminous coal. J. Mitchell's Colliery, 4-mile Creek, near East Maitland (contractor to A.S.N. Co. and H.R.N.S.N. Co. for the supply of their steamships).
- 378. Bituminous coal. Duckenfield Colliery, near Newcastle; seam 10 ft. 1 in. thick, 5 ft. 6 in. worked.
- 379. Bituminous coal. Lambton Colliery, near Newcastle; seam 9 ft. 2 in. thick, 8 ft. 5 in. worked.
- 380. Bituminous coal. Australian Agricultural Co.'s Colliery, Hamilton, near Newcastle; seam averages about 10 ft. 6 in. in thickness.
- 381. Bituminous coal. New Lambton Colliery, near Newcastle; seam 9 ft. 9 in. thick, 8 ft. 1 in. worked.
- 382. Splint coal. Greta Colliery, 32 miles from Newcastle; seam 16 ft. 2 in. thick.
- 383. Splint coal. Bowenfels Colliery, Lithgow Valley; sample No. 1.
- 384. Splint coal. Bowenfels Colliery, Lithgow Valley; sample No. 2.
- 385. Splint coal. Vale of Clwydd Colliery, Lithgow Valley.
- 386. " Esk Bank Colliery, Lithgow Valley.
- 387. Bituminous coal. Bulli Colliery; seam 8 ft. thick.
- 388. Petroleum oil cannel coal (kerosene shale). Greta.
- 389. Bituminous coal. Dudley Colliery, Red Head, near Newcastle.
- 390. Splint coal. Nash's Mine, Mount Wingen; averages 6 ft. thick.
- 391. Petroleum oil cannel coal (kerosene shale). Lake Macquarie.
- 392. Splint coal. Brown and Lamb's Mine, Lake Macquarie; seam 4 ft.
- 393. Splint coal. Macquarie's Mine, Wingen.
- 394. Anthracite coal. Red Head, Clarence River; seam 6 in. thick.
- 395. Petroleum oil cannel coal (kerosene shale). Newcastle Shale Company's Mine, Murrurundi; yield, 17,500 cubic ft. gas per ton.

Class 43—continued.

- 396. Splint coal. Rix Creek.
- 397. Bituminous coal. Brown and Lamb's Mine, Lake Macquarie ;
seam 14 ft.
- 398. Semi-bituminous coal. Piper's Flat, Wallerawang.
- 399. Petroleum oil cannell coal (kerosene shale). Bathgate,
Wallerawang ; yield 17,500 cubic ft. of gas per ton.
- 400. Petroleum oil cannell coal. Sugar-loaf, near Hartley.
- 401. " " (kerosene shale). Blackheath.
(From the out-crop.)
- 402. Splint coal. Buckley's Coal Mine, Wallerawang ; seam 5 ft,
thick.
- 403. Petroleum oil cannell coal (kerosene shale). Mount Magalow.
County Cook.
- 404. Petroleum oil cannell coal (kerosene shale). Joadja Creek ;
1 ft. 6 in. thick.
- 405. Bituminous coal. Woodford Colliery ; seam 6 ft. thick.
- 406. " Cajola Creek, near Ulladulla.
- 407. " Fitzroy, near Jellore ; 20 ft. thick.
- 408. " Mount Kembla, Wollongong.
- 409. Semi-bituminous coal. Coal Cliff, near Wollongong ; seam
5 ft. 6 in.
- 410. Semi-bituminous coal. Osborne Wallsend Colliery, Wollon-
gong ; seam 7 to 9 ft.
- 411. Anthracite coal. Fitzroy Iron Co.'s Mine, Berrima ; seam 7
ft. thick.
- 412. Semi-bituminous coal. Mount Pleasant, near Wollongong ;
seam 7 to 9 ft. thick.
- 413. Bituminous coal. Jamberoo.
- 414. Petroleum oil cannell coal (kerosene shale). American Creek,
Wollongong ; seam 1 ft. 6 in. thick.
- 415. Petroleum oil cannell coal (kerosene shale). Joadja Creek,
Berrima.
- 416. Petroleum oil cannell coal (kerosene shale), and splint coal.
Anvil Creek.
- 417. Petroleum oil cannell coal (kerosene shale). Mount Kembla.
- 418. " " " and bituminous
coal. Berrima.
- 419. Petroleum oil cannell coal (kerosene shale). Hartley ; yield
18,000 cubic ft. of gas or 160 gallons crude oil per ton
from seam 8 ft. 2 in. thick.

Class 43—continued.

Exhibited by the New South Wales Commissioners.

Sections of coal seams from the mines worked in the Northern, Southern, and Western districts. Collected by John Mackenzie, F.G.S., Government Examiner of Coal Fields.

Bituminous coal from the Northern district, county of Northumberland.

Section of coal seam worked at the Australian Agricultural Company's Colliery, Newcastle.

Section of coal seam worked at the Co-operative Colliery, Platsburg, near Newcastle.

Section of coal seam worked at the New Lambton Colliery, near Newcastle.

Section of coal seam worked at the Newcastle Wallsend Colliery, near Newcastle.

Section of coal seam worked at the Newcastle Coal Company's Colliery, The Glebe, Newcastle.

Semi-bituminous coal from the Southern district, county of Camden.

Section of coal seam worked at the Bulli Colliery, Bulli, near Wollongong.

Section of coal seam worked at the Osborne Wallsend Colliery, Mount Keira, near Wollongong.

Section of coal seam worked at the Illawarra Coal Company's Colliery at Mount Pleasant, near Wollongong.

Semi-bituminous coal from the Southern district, county of Cumberland.

Section of coal seam worked at the Coal Cliff Coal-mining Company's Colliery at Coal Cliff, fifteen miles from Port Hacking, and thirty-five miles from Port Jackson by sea.

Splint coal from the Western district, county of Cook.

Section of coal seam worked at the Vale of Clwydd Colliery at Lithgow Valley, alongside the Great Western Railway, and 95 miles from the harbour of Port Jackson.

Kerosene shale, petroleum oil cannel coal. The New South Wales Shale and Oil Company, 3, Hunter-street, Sydney.

The seam of this peculiar and valuable mineral is about 3 feet thick, and occurs in the Upper Coal Measures. It yields 150 to 160 gallons of crude oil per ton, and 18,000 cubic feet of gas per ton, with an illuminating power equal to forty candles. The "Comet" kerosene oil is manufactured from this shale in Sydney.

Class 43—continued.

ROCKS.

Exhibited by the Department of Mines, Sydney. Collection of Rock Specimens from New South Wales; arranged by C. S. Wilkinson, L.S., F.G.S., Government Geological Surveyor.

- 420 Black calcite in trap, intruding carboniferous beds. Wollongong.
- 421 Augitic basalt, containing glassy felspar. Mount Wilson.
- 422 Decomposed basalt. Bondi.
- 423 Porphyritic trap, intruding carboniferous beds.
- 424 Diorite with calcite.
- 425 Basalt. Bondi.
- 426 „ containing olivine. Oberon.
- 427 Trap dyke, traversing carboniferous beds. Kiama.
- 428 Amygdaloidal basalt. Near Gulgong.
- 429 Basalt containing olivine. Newstead.
- 430 Greenstone. Redhill, Gulgong.
- 431 Diorite. Gulgong.
- 432 „ Young.
- 433 Porphyrite. Grenfell, from depth of 716 feet.
- 434 „ Homeward Bound reef, Grenfell.
- 435 Felspar porphyry. Bellubula Caves, near Carcoar.
- 436 „ Mount Lambie.
- 437 Porphyry. Hilton, near Mount Lambie.
- 438 „ Mount Etty.
- 439 Porphyritic granite. Iron River, near Bingalong.
- 440 „ „ Black Lead, Gulgong.
- 441 Granite. Junction of Cumbamurrah River and Jugiong Creek.
- 442 „ Near Murrumburrah.
- 443 „ Gulgong Reef, near Gulgong.
- 444 Hornblendic granite. Young.
- 445 Granite, showing smoky quartz crystals. From Home Rule.
- 446 „ Near Wiseman's Creek.
- 447 „ Wagga Wagga.
- 448 „ Tallawang Crossing, Gulgong.
- 449 „ Murrumburrah.
- 450 Metamorphic granite. Adelong.
- 451 Schorl in granite. Wombat, near Young.
- 452 Granite. Bathurst Road, Mount Walker.
- 453 „ Grenfell.
- 454 „ Tumberumba.

Class 43—continued.

- 455 Silurian slate. Dayspring Reef, near Forbes.
- 456 Schist (Silurian or Devonian). Bethungra.
- 457 Silurian schist. Near Grenfell.
- 458 „ „ Brown Snake, near Gulgong.
- 459 Jasperoid metamorphic rock, Upper Silurian. Happy Valley, Parkes.
- 460 Limestone. Near Wallerawang.
- 461 Hornstone, metamorphic rock, Upper Silurian. Happy Valley, Parkes.
- 462 Limestone. Canadian lead, Gulgong.
- 463 Pliocene Tertiary cement. Cudgegong River.
- 464 Serpentine. Near Barraba.
- 465 Granite veins, intruding Devonian beds. Near Mount Lambie.
- 466 Chert in Coal Measures. Broughton Creek.
- 467 Slate, Silurian. Adelong Creek.
- 468 Indurated shale. Bowling Alley Point, Peel River.
- 469 Serpentine. Gundagai.
- 470 Mica schist. Wagga Wagga.
- 471 „ „
- 472 Yellow slate, Silurian. Forbes.
- 473 Serpentine. Irene, Campbell's River.
- 474 Altered schist. Home Rule.
- 475 Limestone. Kangaroo Flat.
- 476 Schist, Silurian. Forbes.
- 477 Marble limestone. Tarrabandra, near Tumut.
- 478 Talcose schist. Wiseman's Creek, near Oberon.
- 479 Limestone. Near Forbes.
- 480 Chalcedonic quartz. Andrew & Co.'s lode, Tent Hill.
- 481 Shale. Upper Coal Measures, Nattai.
- 482 „ „ Wianamatta Series.
- 483 Calcite. Lunatic.
- 484 Carboniferous sandstone. Tallawang.
- 485 Sandstone used for building purposes in Sydney. Hawkesbury Series.
- 486 Felspar. Home Rule.

Exhibited by the New South Wales Commissioners.

Nos. 1 to 7, samples of soil, collected by Mr. M. M. Campbell, Crown Lands Agent, from a place in Big Scrub, about seven miles above Lismore, and away from the river. This earth is a fair sample of the soil in the

Class 43—continued.

dense scrub in this district, and which covers an area of about 400 square miles. Also, from the bank of the river, about one mile below Casino, five samples of earth, as follows:—

				ft.	in.	
No. 1.	Surface	...	...	1	9	deep.
2.	Second layer	...	...	2	0	"
3.	Third layer	...	...	2	1	"
4.	Fourth layer	...	...	4	0	"

No. 5, surface from lower down the river, and of richer quality of soil.

Five samples of alluvial soil, collected by Mr. Warden Robinson, P.M., from 'Possum Flat, within one mile of Young. Good paying gold has been got at 47 feet sinking at this spot, with 2 feet of "wash-dirt" on rock bottom (granite).

				ft.	in.	
Sample 1.	...	...	...	1	0	deep.
2.	...	...	...	5	0	"
3.	...	...	...	1	6	"
4.	...	...	...	2	0	"
5.	...	...	...	1	6	"
				11	0	"

Collected by Mr. W. H. Thomas, Crown Lands Agent, sample of soil from Grafton. This soil maintains the same character to a depth of 20 to 30 feet. The staple crops grown on this soil are sugar-cane, maize, bananas, and grape-vines, all in great profusion.

Collected by Mr. Wm. Dudding, C.P.S., samples of soil as follows, from surface downwards:—

				ft.	in.	
No. 1 sample	...	...	...	4	0	thick.
2	"	...	...	5	6	"
3	"	...	...	3	9	"
4	"	...	...	7	6	"
5	"	Continues on to rock.				

Collected by Mr. W. Lovegrove, six samples of soil, from 1 to 6 feet in depth, from Terara, Shoalhaven River.

Collected by Mr. Warden Lane, Orange, samples of soil from near Orange, as follows:—

				ft.	in.	
No. 1 sample.—	Surface, brown earthy loam	...	...	2	0	
2	" Red earthy clay	...	...	5	0	
3	" Brown ferruginous clay with quartz pebbles	...	...	2	10	
4	" Brown and white mottled clay with sandstone pebbles	...	...	3	0	
				12	10	
No. 5.—	Surface, brown clay, full of concretionary nodules of ironstone	...	...	2	6	
6.—	Friable ferruginous clay or shale	...	...	2	4	
7.—	Fine-grained brown sandstone	...	...	6	0	
				10	10	

Class 43—continued.

BUILDING STONES.

Almost every variety of building stone may be obtained in New South Wales. In and around the city of Sydney there are numerous quarries in the sandstone of the Hawkesbury formation, which is one of the upper members of the Carboniferous group. This sandstone, which, for colour and texture can hardly be surpassed for building purposes, is the stone most commonly used in the construction of the public and private buildings in Sydney. Extensive deposits of marble, of Silurian and Devonian ages, occur in several places in the Colony. The black variety from the Marulan, and the white from the Cow Flat Marble Quarries, have been used in flooring the Great Hall of the Sydney University. The marble near Wallerawang is thus described by Mr. C. S. Wilkinson, L.S., F.G.S., Government Geologist, on his geological survey map of the Wallerawang and Bowenfels District:—

“Thick beds of coralline limestone of very pure quality. It forms a compact marble of various tints, white, cream, and dove-coloured, and sometimes with pink markings. It dresses well, takes an excellent polish, and may be obtained in blocks of almost any required size and quantity. Situated as it is, only 7 miles from the Wallerawang Railway Station, it will be available for the Iron-smelting Works in the district, and will afford a source of large supply for the Sydney market. The limestone consists almost entirely of corals—*Favosites gothlandica*, *Favosites polymorpha*, *Lithostrotion*, and others, and mollusks as yet undetermined.”

Granite occurs in great abundance, and in every variety of texture and colour; it is used in Sydney for building and decorative purposes.

Exhibited by Department of Mines, Sydney.—Collection of Building Stones from New South Wales, arranged by C. S. Wilkinson, L.S., F.G.S., Government Geological Surveyor.

279	Marble.	Marulan.
280	„	Wallerawang.
281	„	Marulan.
282	„	Tarrabandra, near Gundagai.
283	„	Marulan.
284	„	Wallerawang.
285	„	„
286	„	Moruya.
287	„	Wallerawang.
288	„	Marulan.
289	„	Near Bathurst.

Class 43—continued.

- 290 Marble. Wallerawang.
- 291 „ Black Lead, Gulgong.
- 292 „ Rockley, near Bathurst.
- 293 „ Manning River.
- 294 „ Marulan.
- 295 „ „
- 296 Granite.
- 297 „ (P.O.)
- 298 Marble. Bathurst.
- 299 Sandstone. This is the stone used for building purposes in Sydney. From Pyrmont quarries.

Three slabs of slate from the surface of a quarry at Kerrawary Creek, Straithaird, Argyle, N.S.W. Mr. W. Douglass, 170, Pitt-street, Sydney.

MISCELLANEOUS MINERALS.

Exhibited by Department of Mines, Sydney.

Collection of Miscellaneous Minerals from New South Wales. Arranged by C. S. Wilkinson, L.S., F.G.S., Government Geological Surveyor.

- 487. Asbestos. Wentworth, Lucknow Gold Fields.
- 488. Kangaroo bone, incrustated with stalagmite. Fish River Caves.
- 489. Talc. Trunkey.
- 490. Fossil wood. Happy Valley, Gulgong.
- 491. Fireclay. Lithgow Valley Iron Company, Eskbank.
- 492. Asbestos. Cow Flat.
- 493. „ Wiseman's Creek.
- 494. Quartz crystals. Peel River.
- 495. Alum and magnesian salts. Wallerawang.
- 496. Kaolin.
- 497. Calcite. Bromby, near Mudgee.
- 498. Fireclay. Lithgow Valley.
- 499. Asbestos. Mount Lawson, near Bathurst.
- 500. „ Carrangara „
- 501. „ „ „
- 502. Molybdenite. Goodrich Mine.
- 503. Aragonite. Liverpool Plains.
- 504. Calcite. Kiandra.
- 505. Opal. O'Connell, near Bathurst.
- 506. Pseudomorphic quartz. Lunatic.
- 507. Asbestos. Briar Park, near Rockley.
- 508. „ Back Creek, near Bathurst.

Class 43—continued.

- 509. Wood (opal). Home Rule.
- 510. Petrified wood. Solferino.
- 511. Silicified wood. Gulgong.
- 512. Amethystine quartz. Near Bathurst.
- 513. Altered talcose schist. Near Gundagai.
- 514. Smoky quartz. Havilah, near Mudgee.
- 515. Asbestos. Briar Park, near Rockley.
- 516. „ Near Trunkley.
- 517. Wood opal. Home Rule.
- 518. Kaolin. Richmond River.
- 519. Calcite. Kiandra Caves.
- 520. Pumice stone. Bondi.
- 521. Agate. Gulgong.
- 522. Garnet rock. Duckmaloi.
- 523. Calc spar. Talbragar River.
- 524. Quartz crystals. Sidmouth Valley.
- 525. Fluor spar in devonian beds. Mount Lambie.

Exhibited by the New South Wales Commissioners.

12. Hones from Mudgee District. Collected by P. N. Trebeck, Esq., and Hon. G. H. Cox, M.P. This hone-stone may be obtained in unlimited quantity; much of it is quite equal to the Turkish hone.

Collection of Minerals from New South Wales, exhibited by the Honorable Saul Samuel, C.M.G., M.L.C., Sydney.

- S.S. 2 to 16. Sulphuret of antimony—Cargula. Macleay River.
- „ 17. Kerosene shale. Greta Colliery.
- „ 18. Silver ore. Moruya.
- „ 19. Lode tin. Newstead, New England.
- „ 20. Grey copper ore. Ophir Copper Mine, near Bathurst.
- „ 21. Carbonate of copper. Cadiangulong Mine, near Orange.
- „ 22. Red oxide of copper. „ „
- „ 23. Silver ore. Moruya.
- „ 24. Sulphide of copper. Canoblas Mine, near Orange.
- „ 25. Copper ore. Cow Flat.
- „ 26. Sulphide of copper. Summer Hill, near Bathurst.
- „ 27. „ „ Ophir Copper Mine.
- „ 28. Carbonate and red oxide of copper. Cadia, near Orange,
- „ 29. „ „ „
- „ 30. Sulphide of copper. Lobb's Hole, near Kiandra.
- „ 31. „ „ Wiseman's Creek.

Class 43—continued.

- S.S. 32. Lode tin. Newstead, New England.
 „ 33. Black tourmaline (schorl). New England.
 „ 34. Black oxide and sulphide of copper. Canoblas, near Orange.
 „ 35. Red oxide and carbonate of copper. „
 „ 36. Sulphuret of antimony. Paterson River.
 „ 37. „ „ Macleay River.
 „ 38. „ „ Paterson River.
 „ 39. Carbonate of copper. Ophir Mine, near Bathurst.
 „ 40. Peacock ore. Canoblas Copper Mine.
 „ 41. Red oxide of copper. Coombing Mine, near Orange.
 „ 42. Black oxide of copper. Ophir Mine, near Bathurst.
 „ 43. Galena. Braidwood.
 „ 44. „ „
 „ 45. Native copper. Ophir Mine, near Bathurst.
 „ 46. Galena. Moruya.
 „ 47. Lode tin. New England.
 „ 48. Copper ore. Cow Flat.
 „ 49. „ „
 „ 50. Carbonate of copper. Canoblas Copper Mine.
 „ 51. Copper ore. Coombing, near Carcoar.
 „ 52. „ „
 „ 53. Black oxide of copper.
 „ 54. Manganese and cobalt. Port Macquarie.
 „ 55. Sulphide of copper. Ophir Mine, near Bathurst.
 „ 56. Carbonate of copper. Coombing, near Carcoar.
 „ 57. „ „

Exhibited by the New South Wales Commissioners.

- No. 47. }
 48. } Lode tin, from Glen Creek, New England.
 49. }
 50. } Silver ore, from Mann River, Clarence District.
 51. }
 52. }
 53. } Quartz, from the vicinity of the Clarence.
 54. }

Copper, Silver, and Lead Ores, from Peelwood Copper Mine, New South Wales. Exhibited by Joseph Paxton, Esq., J.P., Sydney.

P

- No. 1. Red oxide and carbonates of copper.
 2 to 11. Red oxide of copper.
 12 „ 16. Native copper.

Class 43—continued.

17 & 18. Sulphides of copper.

19 to 21. Green carbonates of copper.

23 & 24. Silver lead ores, from depth 90 feet.

25 Green carbonate of copper and cerusite (carbonate of lead).

26 & 27. Cerusite (carbonate of lead).

28 to 59. Blue carbonate of copper.

NOTE.—In the Peelwood Mine the copper, silver, lead, and zinc ores occur intermixed; an efficient method for the separation of the metals from these ores is required.

Exhibited by the New South Wales Commissioners.

Cast of Meteorite found near Deniliquin, New South Wales.

Exhibited by Professor A. Liversidge, F.G.S., F.C.S., Sydney University.

Nickel and cobalt ores, and accompanying minerals, from New Caledonia. Sections (for microscope) of the Barratta or Deniliquin meteorite, with photographs.

Mineral Specimens supplied by S. L. Bensusan, Sydney.

Cu.

COPPER.

No. 1. Copper pyrites with magnetic iron.

2. Ferruginous copper ore, containing metallic copper and red oxide. Icely.

3. Radiated atacamite (chloride of copper). Cobar.

4. Sulphide of copper in botryoidal form showing crystals.

5. Ferruginous copper ore showing atacamite. Cobar.

6. Carbonate and sulphide of copper, with crystals of calc spar. Icely.

7. Ferruginous copper ore; low percentage. Cobar Mines.

8. Azurite (chessylite; blue carbonate of copper in crystals) with silver grey ore.

9. Grey sulphide of copper, massive.

10. Blue carbonate in steatite. Cobar.

11. Green carbonate in steatite. Cobar.

12. Steel-grey ore, coated with muriate. Cobar Mines.

13. Red suboxide in crystals.

14. Copper pyrites with magnetic iron.

15. Velvet copper ore with red oxide and blue carbonate. Bensusan's Copper Mine, Frogmoor.

Class 43—continued.

16. Bell-metal ore, from Cobar.
17. Native copper with red oxide, from Peabody Mine, near Orange.
18. Ruby copper ore, in massive crystals.
19. Chessylide, in crystals.
20. Red copper ore. Icely Mines.
21. Variegated (peacock) copper ore. Icely Mines, Bathurst.
22. Yellow ore, coated black. Icely Mines.
23. Limestone formation from copper lode with green carbonate.
24. " " "
25. Grey silver ore with blue and green carbonates. Icely.
26. Tile ore : muriate of copper with oxide of iron. Cobar.
27. Native copper, with red oxide. Cobar.
28. Copper pyrites, auriferous. Goodrich.
29. Variegated copper ore, pyrites, and green and blue carbonate.
30. Red copper ore with native pyrites. Great Western Mine.
31. Silicate of copper (chrysocolla).
32. Copper ore containing gold, silver, lead, and zinc.
33. Radiated atacamite (chloride of copper), from Cobar Mines.
34. Tenorite (black oxide of copper). Carcoar.
35. Native copper in siliceous gangue.
36. Malachite, botryoidal.
37. " reniform.
38. "
39. " mammillary.
40. " botryoidal.
41. Atacamite (velvet ore), from Bensusan's Copper Mine, Frogmoor.
42. Ruby copper ore : fine crystals with carbonate.
43. Native copper, foliated.
44. Native copper, foliated with quartz.
45. Crystalline azurite, very perfect.
46. Malachite, cellular.
47. " with microcrystalline azurite.
48. " in crystals.
49. Variegated copper ore (peacock).
50. Native copper, with quartz.
51. " copper, partly crystalline.
52. " "
53. " " and suboxide.
54. Steel-grey ore.
55. Grey sulphide and black oxide. Cobar.
56. Sulphide of copper, in crystals.

Class 43—continued.

57. Radiated atacamite.
58. Suboxide of copper, in crystals.
59. Native copper deposited from mine waters. Icely Mine.
60. Chessylite, fine crystals.
61. Redruthite, from Combing Mines, Carcoar.
62. Red oxide, with native copper, fine crystals.
63. Radiated atacamite, massive.
64. Steel-grey copper ore. Cobar.
65. Purple sulphide of copper.
66. Copper pyrites, calcite and chalcedony.
67. Native copper, with black oxide and gossan.
68. " " crystalline.
69. " " foliated.
70. " "
71. " " reniform.
72. Copper ore containing gold and silver.
73. Suboxide of copper containing native copper.
74. Radiated atacamite. Cobar.
75. Atacamite octahedral crystals, perfect.
76. Chloride of copper, small crystals.
77. Copper pyrites, containing 2 ozs. of gold per ton. Goodrich Mine.
78. Chrysocolla. Burly Jack Mine, Cowra.
79. Blue and green carbonate of copper. Britannia Mines.
80. Dioxide of copper. Garophian Mine.
81. Steel-grey ore. Icely Mine.
82. Carbonate of copper, with carbonate of lime.
83. Vugh of quartz crystals found in copper mine.
84. Green carbonate, with oxide of iron and copper.
85. Fibrous atacamite.
86. " " with red oxide of iron and copper.
87. Native copper incrustated with carbonate.
88. Blue and green carbonate.
89. Native copper.
90. Garnet schist, containing copper.
91. Red oxide of copper, from Snowball Mine, Gundagai.
92. Native copper and suboxide.
93. Green carbonate, with gold. Cudgegong.
94. Carbonates, from Woolgarlo.
95. Red oxide, with green and blue carbonates, from Bensusan's Copper Mine, Frogmoor.
96. Blue carbonate, from Bensusan's Copper Mine, Frogmoor.

Class 43—continued.

97. Copper pyrites, massive specimen, from Bensusan's Copper Mine, Frogmmoor.
98. One bundle containing block of sulphide of copper, from Frogmoor Mines.

Pb.

LEAD.

1. Galena with silver.
2. Cerussite (carbonate of lead) from Peelwood.
3. Galena with copper and lead.
4. Cerussite from Peelwood.
5. Feather ore; galena and stibnite, containing silver and a little gold.
6. Cerussite from Braidwood.
7. Galena; Mylora Mine, near Yass.
8. Galena; containing 75 ozs. ag. per ton, Braidwood district.
9. Galena and copper, Yass.
10. Cerussite with carbonate of copper, Peelwood.
11. Galena and fluor spar, Mylora mine, Yass.
12. Fluor spar, from Woolgarlo Lead Mines.
13. Galena with silver, same locality.
14. Galena with copper, gold, silver and iron pyrites, from Major's Creek.

Sb.

ANTIMONY.

1. Stibnite (sulphide of antimony) from Nundle.
2. „ from Running stream, Wallerawang.
3. „ Rylstone.
4. „ Grafton, coated with oxide.
5. „ Rocky River.
6. „ Turon Mountain.
7. „ Mann River.
8. „ Drake.
9. „ Manning River.
10. „ with copper.
11. „ containing gold and silver, from Paterson.
12. „ fibrous, from Tenterfield.
13. „ „ Drake.

GRAPHITE.

1. Graphite or plumbago, Illawarra district.
2. Graphite from Bungonia.
3. „ impure variety, Bungonia.
4. „ good quality, Tenterfield.
5. „ extra fine quality, from Spring Creek, Marulan.
6. „ from Braidwood district.

Class 43—continued.

Bi.

BISMUTH.

1. Native bismuth, from table-land.
2. Carbonate of bismuth found with tin, near Inverell.
3. Bismuth, 1·5 % ; with copper, 7·1 %, and lead, 6 %, from lode, Maryland.
4. Carbonate of bismuth with sulphide, Mudgee district.
5. Sulphide of bismuth and copper with iron pyrites, near Goodrich.
6. Bismuth ochre, from Tin district.
7. Acicular bismuth with copper.
8. Sulphide of bismuth.
9. Native bismuth with copper and sulphide of bismuth.
10. Bismuth blende (silicate of bismuth.)
11. Bismuth and copper.

Mn.

MANGANESE.

1. Pyrolusite (black oxide of manganese), Spring Creek, near Marulan.
2. Psilomelane, Macleay.
3. Wad (impure earthy manganese), near Orange.

Sn.

TIN.

1. Cassiterite, massive specimen tin oxide in decomposed granite, Planet Tin Mines.
2. Cassiterite, massive, New England.
3. „ massive, small crystals.
4. „ tin oxide, massive, in felspathic rock.
5. „ in felspathic rock, veins traversing rock, Vegetable Creek.
6. „ massive, waterworn, Gulph.
7. „ traversing felspathic rock in veins, crystalline, Vegetable Creek.
8. Cassiterite, rolled specimen, New England.
9. Tin cement, Deepwater.
10. Rock tin, Planet Mine, showing quartz veins.
11. Tin stone from Hall's selection, New England, 80 % tin.
12. Tin ore from the Mole Table-land, New England.
13. Cassiterite, tin ore in decomposed felspathic granite.
14. Stream tin from the Gulph.
15. Cassiterite, rolled specimens from Grampian Hills.
16. „ in chalcedonic rock.
17. „ from lode with quartz rock attached, from Grampian Hills.
18. Poor tin rock containing 3 % tin, with iron, from Vegetable Creek.
19. Tin in decomposed granite from Newstead Mines.

Class 43—continued.

20. Cassiterite in felspathic granite, Tent Hill.
21. Stream tin from the Gulph.
22. Lode tin with elvan, Planet Mines.
23. Tin in iron pyrites, „
24. Tin oxide in decomposed granite, Planet Mines.
25. Cassiterite tin ore, fine wash, from Vegetable Creek.
26. „ crystals, large and perfect, Bolitho Mine.
27. Tin crystals, large, very perfect, New England.
28. Tin ore, massive rolled specimen, very rich, from the Gulph.
29. Lode tin from Ponds, New England.
30. Tin ore in decomposed granite, Newstead Mines.
31. Tin ore in veins of gneiss, Billabong, near Forbes.
32. Rolled specimens of tin ore, from the Gulph country.
33. Tin rock associated with iron, Tinga.
34. Tin ore impure, with much iron.
35. Conglomerate containing tin, Newstead Mines.
36. Lode tin from Inverell Tin Mines, Cope's Creek.
37. Stream tin from Warialda.
38. Amber tin ore, Tenterfield district.
39. Cassiterite, massive, crystalline, very pure.
40. Tin ore in micaceous granite, Maryland, New England.
41. Cassiterite, massive, amber tin crystals, very perfect.
42. „ large octahedral crystal.
43. Lode tin from Range, Cope's Creek.
44. Tin ore in decomposed granite, Warialda.
45. Tin ore from Mole Table-land.
46. Lode tin, Inverell Mine, Cope's Creek.
47. Tin rock, crystalline, Deepwater.
48. Tin ore in decomposed felspar.
49. Tin crystals in quartz and granite, Newstead Mine.
50. Massive tin rock from Deepwater.
51. Resin tin from Dividing Range.
52. „ from the Glen Table-land.
53. Cassiterite ; surface wash from Bundarra.
54. Tin ore from conglomerate, Sugarloaf Creek.
55. Conglomerate in pipeclay, from Ponds, New England.
56. „ from Gulph ; quartz and pipeclay.
57. Cassiterite ; large tin crystals and adhering rock, Bolitho Mine.
58. Tin in elvan rock, New England.
59. Cassiterite ; surface washings from Gulph.
60. Tin ore from gneiss vein, Ellsmore Mines.

Class 43—continued.

61. Lode tin, quartz and granite, from Severn River.
62. Rock tin from Karaula Mines, MacIntyre.
63. Tin washings, poor, from Table-land.
64. Tourmaline from Planet Tin Mines, New England.
65. Stream tin from Spring Creek, Bungonia.
66. Rock tin from Tenterfield.
67. Rolled tin specimens from the Gulph.
68. Black tourmaline, from tin country, often mistaken for tin.
69. " " "
70. " " "
71. Garnet rock " "
72. " " "
73. Schorl or black tourmaline.
74. Lode tin from M'Master's Claim; lode 2-3 feet wide, bulk crushed in Sydney, yielded 14·3 per cent. tin ore of 70 per cent. metallic tin.
75. Wood tin from Lambing Flat.
76. Tungstate of iron found associated with tin ore, and frequently mistaken for tin.
77. Tin-smoke (impure oxide of tin) found in flues of tin furnaces Kangaroo Works, Sydney; carried up mechanically by draft.
78. Tin sulphide crystallized found in bed of tin furnace, Kangaroo Works,
79. Tin sulphide crystals from bed of furnace, Kangaroo Works, Sydney.
80. Rock tin with iron, New England.
81. Resin tin; very rare.
82. Doe tin; very rare; 78 per cent. tin.

Au.

GOLD.

1. Gold and arsenical pyrites with mica, Hawkins' Hill.
2. " quartz, showing alternations with slate formation.
3. Gold in quartz, Lambing Flat.
4. " mispickel, Lucknow, 30 to 300 ounces per ton.
5. " slate from Old Hill, Adelong.
6. " mundic, from Braidwood.
7. " jasper, cut and polished.
8. " pyrrhotine, Hawkins' Hill.
9. " igneous rock.
10. " calcareous spar.
11. Gold, filiform, in quartz.
12. " with silver, lead, antimony, zinc, and iron, Major's Creek.
13. " in ferruginous clay.

Class 43—continued.

14. Gold with pyrrhotine and calc spar, Hawkins' Hill.
15. „ in quartz.
16. „ pyritous quartz from a reef near Mudgee.
17. „ iron pyrites with quartz, from Hermann's Vein, Hawkins' Hill, showing size of vein.
18. „ ferruginous cement from old river bed, Kiandra.
19. „ titaniferous iron.
20. „ with mispickel, from old river bed, Kiandra.
21. „ in other matrix, from same.
22. „ with silver, lead, and zinc, from Gulgong.
23. „ in amygdaloidal quartz, from Brown's Creek, near Carcoar.
24. „ with embolite, lead, and zinc, Hülfe Gotte's Mine, near Scone.
25. „ with iron pyrites and quartz, from thin band alongside reef ; produce, 358 ozs. au. per ton.
26. „ with silver, galena, and pyrites, from Clear Creek, near Bathurst.
27. „ in mispickel, from Brown's Creek, near Carcoar ; lode, 40 feet wide.
28. Gold-bearing matrix, Brown's Creek.
29. Gold in ferruginous clay, Brown's Creek.
30. „ with silver and mispickel in quartz, Moruya.
31. „ and pyrites in granite partially decomposed, Major's Creek, Braidwood.
32. „ and pyrites in undecomposed granite, Braidwood.
33. „ in granite, Major's Creek, Braidwood.
34. „ and iron pyrites in calc spar, Tuena.
35. „ in copper pyrites ; 6 ozs. gold per ton.
36. „ with cubical iron pyrites, quartz, and felspar ; massive specimen from Dargue's Claim, Braidwood ; yield, about $\frac{1}{2}$ oz. per ton.
37. „ in iron pyrites, concentrated by puddling, Braidwood.
38. „ in clay state, Back Creek, near Bathurst ; minute.
39. „ with cobalt, nickel, copper, and iron.
40. „ in arsenical pyrites, with calcar and serpentine rock.

Ag.

SILVER.

- No. 1. Silver with ferruginous carbonate of lead, Peelwood Mine, near Tuena.
2. Silver with iron pyrites and quartz, Mann River.
 3. „ in galena ; very rich.
 4. „ with galena and pyrites, Gulgong.

Class 43—continued.

5. Bromide of silver, from Scone.
6. Silver and gold with pyrites in limestone, Clarence District; 10 ozs. ag., and 3 ozs. gold per ton of pyrites.
7. „ in galena.
8. „ with iron pyrites and quartz, Clarence District.
9. „ with cobalt, lead, zinc and iron, Moruya Mine.
10. „ iron pyrites, Mann River.
11. „ „ and quartz, 40 ozs. per ton, Clarence District.
12. „ from reef near Shellmaleer.

Hg.

MERCURY.

- No. 1. Cinnabar in argillaceous schist, from Cudgegong.
2. „ Cudgegong, in clay matrix.
3. „ solid crystalline, found *in situ*, Cudgegong.
4. Vermilion made from same.
5. Cinnabar washings from alluvial, Cudgegong.
6. „ „ „
7. „ associated with gem sand.
8. „ associated with zircons.
9. „ in limestone, showing vein.
10. „ crystalline, pure, washed from alluvial, Cudgegong.
11. „ in argillaceous matrix, Cudgegong.
12. „ in argillaceous schist, similar to matrix in Almaden Mines.
13. „ with copper.

Zn.

ZINC.

- No. 1. Smithsonite (carbonate of zinc) with silver, lead, and cadmium.
2. Sulphide of zinc (blackjack or blende) Orange.

Mo.

MOLYBDENUM.

- No. 1. Molybdenite sulphide, Glen Innes.
2. „ (sulphide of molybdenum) massive, Tenterfield.
4. „ from Sutton Forest, in quartz.

Fe.

IRON.

- No. 1. Hæmatite, massive stellated, Wallerawang.
2. Fibrous hæmatite, Winter's claim, Wallerawang.
3. Brown „ Liverpool.
4. Magnetic iron, Winter's Claim, near Wallerawang.
5. „ Moore & Abbot's property, Mount Wingin.
6. Hæmatite, showing perfect rhombohedral crystals.
7. Sphærosiderite (carbonate of iron), Marulan.

Class 43—continued.

8. Clay iron ore, Nattai.
9. Pissolite (amygdaloidal hæmatite), Brisbane Water.
10. Limonite (hydrated oxide of iron), from Sutton Forest.
11. Earthy clay, iron ore, Brisbane Water.
12. Iron conglomerate, Port Hacking.
13. Iron hydrated oxide, clayband, from Garra.
14. Magnetic iron ore, granular, from Hartley.
15. Clay iron ore, Mitchell's Claim, Mittagong.
16. Pissolitic iron ore, from Gosford.
17. Hydrated oxide of iron, Rydal.
18. Argillaceous iron ore, containing manganese and gold ; reef 100 feet wide, Bungonia.
19. Iron ochre from Brisbane Water.
20. Oolitic iron from Marulan.
21. Hæmatite from Fitzroy.
22. Pea iron ore from coal measures, Illawarra District.
23. Red ochreous iron ore from Gosford.
24. Cubical oxide of iron, pseudomorph after pyrites, very perfect.
25. Vivianite (phosphate of iron).
26. Hæmatite, peculiar crystalline radiated formation.

FeS₂.

PYRITES.

- No. 1. Iron pyrites, Bathurst, fine pentagon crystal.
2. " pentagonal dodecahedron, perfect, Bathurst.
 3. " large cubes.
 4. " twin crystals, Western District.
 5. " cubical twin crystals.
 6. " acicular, in hornblendic slate.
 7. " changing into brown iron ore, New England.
 8. " from Cow Flat Copper Mines, containing copper.
 9. " from gold reef, Lachlan.
 10. " from gold claim, New England.

MISCELLANEOUS.

- No. 1. Asbestos from Icely Mines, near Bathurst.
2. Steatite (soapstone), Great Western Mine.
 3. Kaolin (silicate of alumina), Braidwood.
 4. " (china clay), Western District.
 5. " " "
 6. Epsomite, Blue Mountain.
 7. Hornblende, Abercrombie Mountain.

Class 43—continued.

8. Calc spar veins intersecting slate formation, Hawkins' Hill.
9. Dendrites on marl.
10. Silicate of lime, New England ; rare specimen.
11. Rose quartz, Western District.
12. " "
13. Silicified wood with quartz crystals, Two-mile Flat.
14. " " "
15. " Two-mile Flat.
16. " "
17. " from Abercrombie.
18. Smoky quartz or cairngorm, from Tin district.
19. Quartz crystals, Western District.
20. " "
21. Opal.
22. Semi-opal, (hyalite).
23. Topazes from Tin district.
24. Zircons from Abercrombie.
25. Sapphires from "
26. Corundum from "
27. Moss agate dendritic quartz, Goulburn District.
28. Beryl from MacIntyre.
29. Aquamarine.
30. Two amethysts, Dubbo ; very perfect.
31. Opal from Abercrombie.
32. Carnelian from Wellington.
33. Magnetic iron pyrites from Tin Fields—frequently mistaken for tin.
34. Tourmaline from Tin Fields.
35. Basanite (lydian or touchstone of the jewellers).
36. Agate and chalcedony pebbles from Bulli, from conglomerate over top seam of coal.
37. Gem sand from Bingera Diamond Fields.
38. " " "
39. " " containing gold, diamantiferous.
40. Kidneys of limonite from Bingera.
41. Garnet schist, Turon Mountains.
42. Garnet rock from Mudgee.
43. Agate, Western District.
44. " "
45. " "
46. " "
47. " "

Class 43—continued.

48. Agate, Western District.
49. Kerosene shale, Joadga Creek, near Berrima.
50. „ Hartley Vale.
51. „ from Wolgan River.
52. „ from Sugar-loaf Mountain, M'Kenzie's.
53. „ from Joadga, with seam of bitumen.
54. „ Hartley Vale, showing conchoidal fracture.
55. „ from Mount Victoria.
56. Granite, Moruya.
57. „ „
58. Porphyry from M'Kenzie River.

METALS.

TIN.

- No. 1. One ingot ; 70 lbs., from Bensusan's Kangaroo Tin Works, Sydney.
2. Three ingots, each 24 lbs., „ „ „
3. Six „ 14 lbs. each, „ „ „
4. Grain tin, from Bensusan's Kangaroo Tin Works, Sydney.
5. Tin in bars, 21 bars „ „ „

Sb.

ANTIMONY.

- No. 6. One half-ingot star antimony, made in Sydney.
- No. 19. Antimony regulus, made in Sydney.
20. „ crude, „

COPPER.

- No. 7. One ingot copper, Great Western Company.
8. Two ingots „ Emu Copper Company, Lithgow (in case 468 packed with wheat).
17. Cement copper, made in Sydney by Hunt & Douglass's process.

NICKEL.

- No. 9. Nickel in bars, made in Sydney ; 97 per cent. metallic nickel.
10. Metallic nickel, „ 90 „ „
11. „ „ at Kangaroo Works ; 95 per cent. metallic nickel.
12. Metallic nickel, made in Sydney, shotty, 95 per cent. met. nickel.
13. Sulphide of nickel, „ large specimen ; about 40 per cent. metallic nickel.
14. Sulphide nickel, about 35 per cent. met. nickel, made in Sydney.
15. Nickel and copper alloys.

Class 43—continued.

MERCURY.

No. 16. Metallic mercury, made in Sydney from Cudjcong cinnabar ores.

PLATINUM.

No. 18. Platinum sand from Macleay River.

Class 44.

PRODUCTS OF THE CULTIVATION OF FORESTS, &c.

1. Tree Ferns. New South Wales Commissioners.

No. 1. *Alsophila australis*.

This species is more or less abundant in sheltered situations within the coast districts of the Colony, extending inland about 50 miles. It is the most abundant of any of its class, and in the Blue Mountain Ranges it reaches a height of from 50 to 60 feet. From its stem vases and drinking cups are occasionally made by the colonists.

No. 2. *Dicksonia antarctica*.

This species has a wide range, inhabiting similar situations to the former ; extends in a more southerly direction than that species, but does not reach so far north. In habit it is more slender than the same species in Victoria or Tasmania, but it attains to a greater height in New South Wales than in the other Australian Colonies.

No. 3. *Alsophila macarthuri*.

This species is not of such general occurrence as either of the two preceding, nor does it extend so far south. In appearance it is very beautiful and graceful ; in some situations the stems attain to a height of from 20 to 25 feet, and diameter about 4 inches ; with fronds from 12 to 15 feet.

No. 4. *Alsophila cooperii*.

This species is comparatively rare, though abundant in some places. It attains to a considerable height, and, like the preceding species, its stem is slender and fronds large. It is the most easily cultivated of any indigenous species in the Colony, and is very closely allied to *Alsophila excelsa*, a native of Norfolk Island.

The specimens sent of these four species are sufficiently large to illustrate their character, and will give to the stranger a good idea of this class of New South Wales vegetation.

Timbers from Clarence River :—Beach, Tree-bean, Box, Ironbark, Forest-oak, Flooded-gum, Grey-gum, Rosewood, Red-cedar, White-cedar, Pine, Tulip, Yellow-myrtle, sp. gum. Thomas Page, Grafton.

Class 45.

NATURAL HISTORY, &c.

Casts of Fossil Remains exhibited by the Trustees of the Australian Museum.

1. Skull of an aborigine of Cape York, showing peculiarity of orbital ridge and superior maxillaries.
2. Skull of an aborigine of N. S. Wales.

CASTS OF FOSSIL BONES.

3. Sacral vertebra of Diprotodon.
4. Atlas vertebra of "
5. Portion of the axis vertebra of Diprotodon.
6. Lower jaw of young Diprotodon.
7. Portion of right lower jaw of Diprotodon.
8. " left " "
9. " " " "
10. Proximal end of right lower jaw "
11. " " " "
12. " left " "
13. Cap of pelvis of young Diprotodon.
- 13a (Duplicate) "
14. Right humerus of Diprotodon.
15. Median portion of tibia of Diprotodon.
16. Proximal end of humerus of Diprotodon.
17. Distal end of femur of "
18. " " "
19. Marsupial bone of Diprotodon (*not previously known*).
20. Right rib, 1st "
21. Portion of 3rd rib "
22. Proximal portion of ulna of Diprotodon.
23. Ulna of Wombat, *Phascalomys*
24. Four upper molar teeth and portion of skull of *Nototherium*.
25. Prox. portion of humerus of Wombat.
- 25a. (Duplicate) " "
26. Left lower jaw of Wombat.
27. Humerus of Wombat.
28. Distal end, left humerus of Wombat.
29. Proximal end of femur of Wombat.
30. Right lower jaw of *Thylacoleo*.
31. " " "
32. Condyle and articulating ramus of left lower jaw of *Thylacoleo*.
33. Right lower jaw of *Thylacoleo*.

Class 45—continued.

84. Portion of upper jaw, showing a premolar and a canine tooth of *Thylacoleo*.
85. Portion of zygomatic arch of *Diprotodon*.
- 85a. (Duplicate) " "
86. Molar tooth of gigantic kangaroo, allied to *Macropus*.
87. " " "
88. Right lower incisor gigantic kangaroo, probably of same animal.
89. Distal end of fibula " (?)
(36, 37, 88 were all found together.)
40. Toe bones of macropus.
- 40a. (Duplicate) "
41. Portion of upper jaw of *Sthenurus*.
42. Right lower jaw of *Sthenurus*, from Cowra Caves.
43. " " "
44. Shaft of tibia " "
- 44a. " " "
45. Dorsal vertebræ of a gigantic saurian (*Orocodilus*).
46. " " " "
47. Portion of " " "
48. " " " "
49. " " " " (duplicate)
50. Pelvis of *Dromornis*, from Gulgong.

MONOTREMATA.

1. The Echidna, Australian Hedge-hog, or Spiny Ant-eater (*Tachyglossus aculeatus*).
Hab. The whole of Eastern Australia from Victoria to Cape York.
2. The Platypus or Water Mole (*Ornithorhynchus anatinus*).
Hab. The whole of Australia from Victoria to Queensland, as far north as George Town.

It has long since been proven that neither of these peculiar animals lay eggs. The young are born in the ordinary manner, but before they are fully developed; the mouth is, however, sufficiently developed to perform the action of suction; the young are placed on the milk areola (there is no real nipple) by the mother. In the Echidna the areola is an indentation in the skin, in the Platypus a flat surface. Both have been found in Queensland, the Echidna as far north as Cape York. The young Echidnæ attain to nearly the full size of the adult before they become spined.

Class 45—continued.

IMPLACENTALIA.

Marsupialia—Macropida.

3. The Great Kangaroo (*Macropus major*), adult male.
Hab. South and Eastern Australia.
4. The Great Long-haired Kangaroo (*Osphranter robustus*).
Hab. Eastern Australia.
5. The Red-necked Wallaby (*Halmaturus ruficollis*).
Hab. Eastern Australia.
6. (*Halmaturus ualabatus*).
Hab. New South Wales.
7. The Paddymelon (*Halmaturus thetidis*).
Hab. New South Wales.
8. The Rock Wallaby (*Petrogale penicillata*).
Hab. Eastern Australia.

CARPOPHAGA.

9. The Native Bear or Australian Sloth (*Phascolarctos cinerea*).
Hab. The Southern and Eastern portion of Australia.

RHIZOPHAGA.

10. The Broad-fronted Wombat (*Phascolomys latifrons*).
Hab. Southern and Eastern rocky portions of Austratia.

LYRE-BIRDS.

11. *Menura superba* (Davies), adult male.
12. " " adult female.

GROUP OF BOWER-BIRDS.

13. The Satin Bower-bird (*Ptilonorhynchus holosericeus*) (Kuhl.), adult male.
14. " " (*Ptilonorhynchus holosericeus*) (Kuhl.), adult female.
15. Smith's Cat-bird (*Ailurædus crassirostris*) (Payk.), adult male.
16. " " " " adult female.
17. Spotted Bower-bird (*Chlamydodera maculata*) (Gould), adult male.
18. " " " " adult female.
19. The Regent-bird (*Sericulus melinus*) (Lath.), adult male.
20. " " " " " "
21. " " " " " female.

Class 45—continued.

Australian Birds collected on the Richmond River, and exhibited by J. B. Moorcroft, Taxidermist, Sydney.

1. Prince Albert's lyre-bird, *Menura alberti*—male.
2. " " " —female.
3. Rifle-bird, *Ptilorhis paradisea*—male.
4. " " —male.
5. " " —female.
6. Satin bower-bird, *Ptilonorhynchus holosericeus*—male.
7. " " " " "
8. Regent-bird, *Sericulus melinus*—male.
9. " " " "
10. " " " —young male.
11. *Sphecotheres australis*—male.
12. *Entomyza cyanotis*— "
13. Dragoon-bird, *Pitta strepitans*—male.
14. " " —female.
15. Australian roller, or dollar-bird, *Eurystomus australis*—male.
16. " " " " " female
17. Swamp pheasant, *Centropus phasianus*—male.
18. " " " " —female.
19. Swainson's fruit-dove, *Ptilinopus swainsoni*—male.
20. " " " " —female.
21. Friar-bird, *Philemon corniculatus*—male.
22. Spine-billed honey-eater, *Acanthorhynchus tenuirostris*—male.
23. " " " " —female.
24. Wart-faced honey-eater, *Meliphaga phrygia*—male.
25. " " " " —female.
26. Yellow-breasted thick-head, *Pachycephala gutturalis*—male.
27. " " " " —female.
28. White eye-browed wood-swallow, *Artamus superciliosus*—male.
29. " " " " —female.
30. Black-headed warbler, *Malurus melanocephalus*—male.
31. " " " " — "
32. Superb warbler, *Malurus cyanus*—male.
33. Lambert's warbler, *Malurus lamberti* "
34. Drongo shrike, *Dicrurus bracteatus*—male.
35. " " " " —female.
36. Chestnut-breasted finch, *Donacola castaneothorax*—male.
37. " " " " —female.
38. Sacred kingfisher, *Halcyon sanctus*—male.

Class 45—continued.

39. Rose-hill parrot, *Platycercus eximius* „
40. „ „ „ „ —female.
41. Pennant's lory, *Platycercus pennantii*—male.
42. „ „ „ „ „
43. Swainson's parakeet, *Trichoglossus nova-hollandiæ*—male.
44. „ „ „ „ „ —female.
45. Water-hen, or gallinule, *Gallinula australis*—male.
46. „ „ „ „ —female.
47. King parrot, *Aprosimictus scapulatus*—male.
48. „ „ „ „
49. *Meliphaga* sp.—male.
50. „ „ —female.
51. *Petroica phoenicea*—male.
52. „ „ —female.
53. Five eggs of the brush turkey, *Talegallus lathamii*.
54. Flying phalangers, *Petaurista taguanoides*.
55. „ „ „ „
56. (25) wings, tails, &c., of birds.

AUSTRALIAN BIRDS.

Exhibited by New South Wales Commissioners.

GROUP I.

AUSTRALIAN CRANES AND IBISES.

AUSTRALIAN CRANE OR NATIVE COMPANION.

1. *Grus australasianus*—male.
2. „ „ female.

THE BLACK-PLUMED IBIS.

3. *Threskiornis strictipennis*—male.

THE STRAW-NECKED IBIS.

4. *Geroniticus spinicollis*—male.
5. „ „ young male.
6. „ „ female.

THE GLOSSY IBIS.

7. *Falcinellus igneus*—male (*vix. ad.*)
8. „ „ female (*vix. ad.*)

Class 45—continued.

GROUP II.

AUSTRALIAN GAME BIRDS.

THE BRUSH TURKEY.

9. *Talegallus lathamii*—male.
 10. " " female.
 11. " " "
 12. " " juv. female.

THE RED-BILL, OR PORPHYRIO.

13. *Porphyrio melanotus*—male.
 14. " " female.

THE WATER HEN, OR GALLINULE.

15. *Gallinula tenebrosa*—male.
 16. " " "
 17. " " female.

THE LAND RAIL.

18. *Hypotenidia australis*—male (*vix. ad.*)
 19. " " female (*vix. ad.*)

Plovers.

THE BLACK-BREASTED HILL-PLOVER.

20. *Sarciophorus pectoralis*—male.

THE GOLDEN PLOVER.

21. *Charadrius orientalis*—juv. male.

THE SPUR-WINGED PLOVER.

24. *Lobivanellus lobatus*—male.
 25. " " female.

THE PECTORAL STILT.

22. *Chladorhynchus pectoralis*—male.
 23. " " female.

Snipe.

THE AUSTRALIAN SNIPE.

26. *Scolopax australis*—male.
 27. " " female.

THE PAINTED SNIPE.

28. *Rhynchœa australis*—male.
 29. " " "
 30. " " female.

Class 45—continued.

Pigeons.

THE "FLOCK" OR "TOP-KNOT" PIGEON.

31. *Lopholaimus antarcticus*—male.
 32. " " female.
 33. " " male.
 34. " " "
 35. " " female.

MAGNIFICENT FRUIT PIGEON.

36. *Carpophaga magnifica*—male.
 37. " " female.

SWAINSON'S FRUIT DOVE.

38. *Ptilinopus swainsonii*—male.
 39. " " female.
 40. " " male.
 41. " " female.

THE BRONZE-WINGED PIGEON.

42. *Phaps chalcoptera*—male.
 43. " " female.

THE BRUSH BRONZE-WINGED PIGEON.

44. *Phaps elegans*—male.
 45. " " female.
 46. " " "

THE WONGA-WONGA.

47. *Leucosarcia picata*—female.
 48. " " male.

THE GREEN-BACKED GROUND DOVE.

49. *Chalcophaps chrysochlora*—male.
 50. " " female.
 51. " "
 52. " "

Quail.

THE "VARIED TURNIX," OR "PAINTED QUAIL," &c.

53. *Turnix varius*—male.
 54. " " female.
 55. " " male.
 56. " " female.

THE BLACK-BREASTED TURNIX.

57. *Turnix melanogaster*—male.
 58. " " female.

Class 45—continued.

THE SWAMP QUAIL.

59. *Synoicus australis*—male.
 60. " " female.
 61. " " male.
 62. " " female.

THE CHINESE SWAMP QUAIL.

63. *Synoicus sinensis*—male.
 64. " " "
 65. " " female.

Ducks.

THE BLACK DUCK,

66. *Anas superciliosa*—male.
 67. " " female.
 68. " " male.
 69. " " female.

THE AUSTRALIAN TEAL.

70. *Anas (virago) castanea*—male.
 71. " " female.
 71a. " " adult male.

THE "WHITE WING" OR BROWN DUCK.

72. *Nyroca australis*—juv. male.
 73. " " female.

THE FRECKLED DUCK.

74. *Stictonetta nævosa*—male.
 75. " " female.

THE BLUE-WINGED SHOVEL-BILL.

76. *Spatula rhynchotis*—male.
 77. " " female.

THE PINK-EYED SHOVEL-BILL.

78. *Malacorhynchus membranaceus*—male.
 78a. " " female.

THE MUSK DUCK.

79. *Bigiura lobata*.

THE "MANED GOOSE" OR "WOOD DUCK."

80. *Bernicla jubata*—female.
 81. " " male.
 82. " " "
 83. " " female.

THE PIGMY GOOSE.

84. *Nettapus albipennis*—male.

Class 45—continued.

GROUP IV.

LYRE-BIRDS.

THE SUPERB LYRE-BIRD.

85. *Menura superba*—male.
 86. " " young male.

PRINCE ALBERT'S LYRE-BIRD.

87. *Menura alberti*—male.
 88. " " female.

GROUP V.

AUSTRALIAN PSITTACIDÆ.

Cockatoos.

THE FUNERAL BLACK COCKATOO.

89. *Calyptorhynchus funereus*—male.
 90. " " female.

SOLANDER'S BLACK COCKATOO.

91. *Calyptorhynchus solandri*—male.
 92. " " female.

SULPHUR-CRESTED COCKATOO.

93. *Cacatua galerita*—male.

LEADBEATER'S COCKATOO.

94. *Cacatua leadbeateri*—male.

THE ROSE COCKATOO.

95. *Eolophus roseicapilla*—male.
 96. " " female.

THE COCKATOO PARROT.

97. *Nymphicus novæ hollandiæ*—male.
 98. " " female.

Parrots.

BARRABAND'S PARRAKEET.

99. *Polytelis barrabandii*—male.
 100. " " "

BLACK-TAILED PARRAKEET.

101. *Polytelis melanura*—juv. male.
 102. " " female.

THE KING LOBY.

103. *Aprosmictus scaputatus*—male.
 104. " " "

Class 45—continued.

THE CRIMSON-WINGED LORY.

105. *Ptilines erythropterus*—juv. male.
 106. " " male.

YELLOW-BELLIED PARRAKEET.

107. *Platycercus flaviventris*—male.
 108. " " female.

YELLOW BROAD-TAILED PARRAKEET.

109. *Platycercus flaveolus*—male.
 110. " " female.

PENNANT'S BROAD-TAILED LORY.

111. *Platycercus pennantii*—male.
 112. " " female.

"ROSELLA," OR ROSE HILL PARROT.

113. *Platycercus eximius*—male.
 114. " " "
 115. " " female.

BLOOD-STAINED PARROT.

116. *Psephotus hæmatonotus*—male.
 117. " " female.
 118. " " male.
 119. " " "

BEAUTIFUL GROUND-PARROT.

120. *Euphema pulchella*—male.
 121. " " female.

YELLOW-BELLIED GROUND PARROT.

122. *Euphema chrysostoma*—male.

ELEGANT GROUND PARROT.

123. *Euphema elegans*—female.
 124. " " male.
 125. " " female.

WARBLING GROUND PARROT.

126. *Melopsittacus undulatus*—male.
 127. " " "
 128. " " female.
 129. " " "

THE ZEBRA GRASS PARROT.

130. *Pezoporus formosus*—male.
 131. " " "
 132. " " female.

Class 45—continued.

HONEY-EATING, OR BRUSH-TONGUED PARRAKEETS.

Trichoglossinæ.

“LATHAM’S PARRAKEET,” “SWIFT PARRAKEET,” &c.

133. *Lathamus discolor*—male.
 134. ” ” female.
 135. ” ” male.
 136. ” ” female.

SWAINSON’S PARRAKEET.

137. *Trichoglossus novæ hollandiæ*—male.
 138. ” ” female.
 139. ” ” male.
 140. ” ” female.

THE SCALY-BREASTED PARRAKEET.

- 141 *Trichoglossus chlorolepidotus*—male.
 142 ” ” female.
 143 ” ” male.
 144 ” ” female.

MUSKY PARRAKEET.

- 145 *Trichoglossus concinnus*—male.
 146 ” ” female.
 147 ” ” male.

LITTLE BRUSH-TONGUED PARRAKEET.

- 148 *Trichoglossus pusillus*—male.
 149 ” ” female.
 150 ” ” male.
 151 ” ” female.

COXEN’S FRUIT-EATING PARRAKEET.

- 152 *Oyclopsitta coxeni*—male.
 153 ” ” female.
 154 ” ” female?

GROUP VI.

AUSTRALIAN KINGFISHERS.

Halcyonidæ.

GIANT KINGFISHER.

- 155 *Dacelo gigas*—male.
 156 ” ” ”

Class 45—continued.**SACRED KINGFISHER.**

- 157 *Halcyon sanctus*—male.
 158 " " female.
 159 " " male.
 160 " " female.

MACLEAY'S KINGFISHER.

- 161 *Halcyon macleayi*—male.
 162 " " "
 163 " " female.

AZURE KINGFISHER.

- 164 *Alcyon azurea*—male.
 165 " " "
 166 " " female.

GROUP VII.**AUSTRALIAN HONEY-EATERS.*****Meliphagidæ.*****NEW HOLLAND HONEY-EATER.**

167. *Meliornis novæ hollandiæ*—male.
 168. " " female.

THE WHITE-CHEEKED HONEY-EATER.

169. *Meliornis sericea*—male.
 170. " " female.

AUSTRALASIAN HONEY-EATER.

171. *Meliornis australasianus*—male.
 172. " " female.

FULVOUS-FRONTED HONEY-EATER.

173. *Glyciphila fulvifrons*—male.
 174. " " female.

LEWIN'S HONEY-EATER.

175. *Ptilotis lewinii*—male.
 176. " " female.

YELLOW-EARED HONEY-EATER.

177. *Ptilotis chrysops*—male.
 178. " " female.

FUSCOUS HONEY-EATER.

179. *Ptilotis fusca*—male.
 180. " " female.

Class 45—continued.

WHITE-PLUMED HONEY-EATER.

181. *Ptilotis penicillata*—male.

WHITE-CHEEKED HONEY-EATER.

182. *Ptilotis leucotis*—male.
 183. " " female.

HELMETED HONEY-EATER.

184. *Ptilotis cassidix*—male.
 185. " " "
 186. " " female.

GOLDEN-TUFTED HONEY-EATER.

187. *Ptilotis auricomis*—male.
 188. " " female.

THE LEATHER-HEAD OR FRIAR-BIRD.

189. *Philemon corniculatus*—male.
 190. " " female.

THE SPINY-CHEEKED HONEY-EATER.

191. *Acanthogenys rufogularis*—male.

WART-CHEEKED HONEY-EATER.

192. *Meliphaga phrygia*—male.
 193. " " female.

LANCEOLATE HONEY-EATER.

194. *Plectorhyncha lanceolata*—male.

THE WATTLED HONEY-EATER, OR "GILL-BIRD."

195. *Authochæra carunculata*—male.
 196. " " female.

THE BRUSH WATTLE-BIRD.

197. *Anellobia melioora*—male.
 198. " " female.

THE SPINE-BILLED HONEY-EATER.

199. *Acanthorhynchus tenuirostris*—male.
 200. " " female.

THE BLOOD-BIRD, OR SANGUINEUS HONEY-EATER.

201. *Myzomela sanguinolenta*—male.
 202. " " "
 203. " " "

BLUE-CHEEKED HONEY-EATER.

204. *Eutomyza cyanotis*—male.
 205. " " female.

Class 45—continued.

THE SOLDIER-BIRD, OR GARRULOUS HONEY-EATER.

206. *Myzantha garrula*—male.

207. " " female.

LUNULATED HONEY-EATER, OR BLACK-CAP.

208. *Melithreptus lunulatus*—male.

209. " " female.

SHORT-BILLED HONEY-EATER.

210. *Melithreptus brevirostris*—male.

211. " " female.

GROUP VIII.

AUSTRALIAN ROBINS.

THE HOODED ROBIN.

212. *Melanodryas cuculata*—male.

213. " " female.

THE REDBREAST.

214. *Petroica multicolor*—male.

215. " " female.

THE FLAME-BREASTED ROBIN.

216. *Petroica phænicea*—male.

217. " " "

THE RED-CAPPED ROBIN.

218. *Petroica goodenovii*—male.

THE ROSE-BREASTED WOOD ROBIN.

219. *Erythrodryas rosea*—male.

220. " " female.

THE YELLOW-BREASTED WOOD ROBIN.

221. *Eopsaltria australis*—male.

222. " " female.

GROUP IX.

AUSTRALIAN ACANTHIZÆ, &c.

THE YELLOW-RUMPED ACANTHIZA.

223. *Geobasileus chrysorrhous*—male.

224. " " female.

THE BUFF-RUMPED ACANTHIZA.

225. *Geobasileus reguloides*—male.

226. " " female.

Class 45—continued.

THE SMALLER BROWN ACANTHIZA.

227. *Acanthiza pusilla*—male.
 228. " " female.

THE STRIATED ACANTHIZA.

229. *Acanthiza lineata*—male.
 230. " " female.

THE DWARF ACANTHIZA.

231. *Acanthiza nana*—male.
 232. " " female.

THE WHITE-THROATED GERYGONE.

233. *Gerygone albogularis*—male.
 234. " " female.

GROUP X.

AUSTRALIAN PARDALOTES.

(Pipridæ ?)

THE 'ALLIED PARDALOTE.

235. *Pardalotus affinis*—male.
 236. " " female.

THE RED-TIPPED PARDALOTE.

237. *Pardalotus assimilis*—male.
 238. " " female.

THE SPOTTED PARDALOTE.

239. *Pardalotus punctatus*—male.
 240. " " female.

GROUP XI.

241. *Origma rubricata*—male.
 242. " " female.
 243. *Atrichia rufescens*—male.

GROUP XII.

AUSTRALIAN WRENS, OR WARBLERS.

Malurinae.

THE SUPERB WARBLER, OR BLUE WREN.

244. *Malurus cyaneus*—male.
 245. " " "
 246. " " female.

Class 45—continued.

LAMBERT'S WREN.

247. *Malurus lamberti*—male.
 248. " " female.
 249. " " male.

THE CRIMSON BACK, OR BLACK-HEADED WREN.

250. *Malurus melanocephalus*—male.
 251. " " "
 252. " " "
 253. " " female.

THE EMU WREN.

254. *Stipiturus malachurus*—male.
 255. " " "
 256. " " female.
 257. " " "

GROUP XIII.

AUSTRALIAN TREE CREEPERS.

Climacterinae.

THE LARGE BROWN TREE-CREEPER.

258. *Climacteris scandens*—male.
 259. " " female.

THE WHITE-THROATED TREE-CREEPER.

260. *Climacteris leucophaea*—male.
 261. " " female.

THE RED-EYEBROWED TREE-CREEPER.

262. *Climacteris erythrope*—male.
 263. " " female.

THE ORANGE-WINGED SITTELLA.

264. *Sitella chrysoptera*—male.
 265. " " female.

 266. *Epthianura albifrons*—male.
 267. " " female.
 268. *Chthonicola sagittata*—male.
 269. " " female.

Class 45—continued.

GROUP XIV.

AUSTRALIAN FINCHES OR WEAVER BIRDS.

Ploceidæ.

THE FIRE-TAILED FINCH.

270. *Estrilda bella*—male.

271. " " female.

THE RED-EYEBROWED FINCH.

272. *Estrilda temporalis*—male

273. " " female.

PLAIN-COLOURED FINCH.

274. *Estrilda modesta*—female.

BICHENO'S FINCH.

275. *Estrilda bichenovii*—male.

THE CHESTNUT-EARED FINCH.

276. *Estrilda castanotis*—male.

LATHAM'S FINCH.

277. *Amadina guttata*—male.

278. " " female.

279. " " male.

THE CHESTNUT-BREASTED FINCH.

280. *Donacola castaneothorax*—male.

281. " " female.

THE BANDED FINCH.

282. *Poephila cincta*—male.

283. " " female.

GROUP XV.

AUSTRALIAN PARADISE AND BOWER-BIRDS, &c.

THE RIFLE-BIRD.

284. *Ptilorhis paradisea*—ad. male.

285. " " " "

286. " " " "

287. " " juv. male.

288. " " " "

289. " " female.

Class 45—continued.

Bower-birds.

THE REGENT BIRD.

- 290 *Sericulus melinus*—male.
 291. " " "
 292. " " "
 293. " " juv. male.

THE BLACK SATIN BOWER-BIRD.

294. *Ptilonorhynchus holosericeus*—male.
 295. " " female.

SMITH'S BOWER-BIRD—"CAT-BIRD."

296. *Ailurædus crassirostris*—male.
 297. " " female.

THE NOISY ANT-THRUSH, OR PITTA.

298. *Pitta strepitans*—male.
 299. " " "
 300. " " female.

COLLECTION OF OYSTERS.

Exhibited by Edward S. Hill, J.P., Sydney.

- No. 1a. Port Jackson rock oyster.
 " 1b. Port Jackson mud oyster.
 " 2a. George's River rock oyster.
 " 2b. George's River channel oyster.
 " 2c. George's River artificial bed oyster, from Brisbane brood.
 " 3. Shoalhaven channel oyster.
 " 4. Jervis Bay cluster oyster.
 " 5. Clyde River channel oyster.
 " 6. Broken Bay channel oyster.
 " 7. Newcastle channel oyster.
 " 8. Port Stephen channel oyster.
 " 9. Manning River bed oyster.
 " 10. Cape Hawke bed oyster.
 " 11. Camden Haven bed oyster.
 " 12. Clarence River channel oyster.

Shells of trigoniæ. Warrington G., shell collector, Manly Beach, Sydney.

Very large hornets' nest. Budder E. W., East Kempsey, Macleay River.

Gum and furs. Hill Edward S., Woollahra, Rose Bay.

Class 46.

AGRICULTURAL PRODUCTS NOT USED FOR FOOD.

Bark for tanning. Hill Edward S., Woollahra, Rose Bay.

1. Specimens of bark fibre of gigantic species of hybiscus, dyed and undyed; unworked.
2. 8 Worked samples of the above, dyed and undyed, of various colours. All rosettes.
3. The same bark as Nos. 1 and 2; 3 rosettes, 1 table mat, 1 small one, 3 specimens of fibre, showing its length and texture, one being twisted.
4. Fibre of gigantic nettle-tree.
5. Same as No. 4, only smaller.
6. Nettle-tree, carded.
7. Hybiscus fibre, coarse part.
8. Nettle tree fibre, stained. Rudder E. W., East Kempsey, Macleay River.

Specimen of medicinal bark, *Alstonia constricta*. The residents of many districts in which the tree grows naturally use a decoction of the bark as a cure for fever and ague; and near the southern limits of the growth of the tree I have seen residents use it as a tonic. The local name is "Peruvian-bark tree," or "Leichhardt tree." R. Armstrong, Bridge-street, Sydney.

1 bale of cotton. Hennings William, Fiji.

2 bales of cotton. Ryder Brothers, Mango Island, Fiji.

FLAX. One sample of New Zealand flax, grown at Grafton, by Branch Leonard.

SILK.

Many varieties of the silkworm have been acclimatised in New South Wales, and the ailanthus and the mulberry trees have become general. The experience which has been gained indicates that the Colony possesses every climatic advantage requisite for the production of silk.

Silk, and silk cocoons. One case of twelve compartments. Affleck Thomas, Albury, New South Wales.

Silk, and silk cocoons. One glass case, containing—

Cocoons, Japanese green	} Produce of November, 1877.
" Lombardy buff	
" Indian improved	
" Italian white	
" pierced	

Reeled silk (4 skeins), boiled cocoons and floss, produce of 1876.

Thorne George, Claremont, Rose Bay.

Silk cocoons. J. Fry, Blacktown.

Class 46—continued.**TOBACCO.**

Tobacco, 21 varieties, manufactured from American leaf.

Australian Leaf. Sutton A. W. & Co., Sydney.

Manufactured Australian leaf.

Cigars, 1 box of; manufactured from Clarence River leaf, by Muirhead, Robert, Grafton.

WOOL.

Much of the progress of New South Wales is due to the suitability of the climate for the production of fine wool, and the pastoral industry still contributes more largely to the support of manufactures and the extension of commerce than any other. The narrow tract lying between the sea and the mountains is better adapted for depasturing long coarse-woolled sheep, and there the Lincoln, Leicester, and Cotswold breeds are found. The tablelands and western plains are almost wholly stocked with merinos and Saxon merinos, descended from the flocks of Germany, France, and Spain. The process of acclimatisation has modified the type of the Spanish merino. There has been a decided gain in the softness of the wool and an improvement in its elasticity; but, while it has increased in length, it has diminished in density, so that the weight of the fleece remains about the same. The increase of the merino sheep has been great and continuous; and, having much variety of soil and climate, New South Wales can produce in perfection all the kinds of wool which manufacturers may require, from the very finest clothing to the long silky lustrous combing wool now so much in demand. Nearly one-half of the total number of sheep in Australia are depastured within the limits of New South Wales; and the average weight of washed wool per fleece is from 2½ lbs. to 3 lbs. One hundred samples of wool are shown in the New South Wales Court at the Paris Exhibition. The limit of possible production has not yet been reached. The increase has been three-fold during the last decade; and an experienced pastoralist estimates that, with favourable seasons and a continuance of remunerative prices for wool in the English market, the flocks of New South Wales ten years hence will reach an aggregate of from forty to fifty millions. Official returns of live stock show that on the 31st March, 1877, there were 366,703 horses, 3,131,013 horned cattle, and 24,503,388 sheep. The Customs returns for 1876 show that the exports of the principal pastoral products—wool, live stock, preserved meats, hides, and leather—amounted in value to nearly seven millions and a half sterling.

Class 46—continued.
 Twelve Cases of Fleeces of Merino Wool.—Exhibited by the Agricultural Society of New South Wales.

No.	Breeders.	Brand.	Breed.	Description.
1	Olive & Hamilton, Collaroy, Merriwa	CY	Collaroy merino....	Washed clothing ewes.
2	Theophilus Cooper, Auburn Vale, Inverell.	TC	Merino	Washed combing ewe hoggets.
3	F. & A. Cox, Mudgee	FAX	Mudgee merino....	Greasy combing.
4	Olive & Hamilton, Collaroy, Merriwa	CY	Collaroy merino....	Washed clothing ewes.
5	Theophilus Cooper, Auburn Vale, Inverell.	TC	Merino	Greasy clothing ewe hoggets.
6	C. B. Fisher	CBF	Australian merino..	Greasy strong combing.
7	Olive & Hamilton, Collaroy, Merriwa	CY	Collaroy merino....	Greasy combing ewe hoggets.
8	A. Loder, Collie Creek	AL	Merino	Greasy combing.
9	Peel River L. & M. Co., Goonoo Goonoo	PREL & M. Co. in diamond.	Do.	Washed combing.
10	Do. do.	Do.	Do.	Greasy combing.
11	A. Loder, Collie Creek	AL	Do.	Washed clothing.
12	G. L. Lethbridge, Singleton	GLL	Silesian & Australian merino.	Greasy combing.

Class 46—continued.

WASHED WOOL.—COMBING.

No.	Breeders.	Brand.	Breed.	Description.
	Oswald Bloxsome, Ranger's Valley, New England.	OB over X	Pure merino	Breeding ewes' wool. The wool a little under twelve months growth. Hot water soaked, spout-washed, and lightly skirted.
	Brodrick & Neale, Tarrawonga <i>vid</i> Booligal.	BXN in oblong	Merino	Scoured combing hoggets. Grown on back country between the Iachlan and Darling Rivers.
	Theophilus Cooper, Auburn Vale, Inverell.	TC	do.	Washed ewes' combing. Cold water washed, spouted. No soap or other chemical used.
	Theophilus Cooper, Auburn Vale, Inverell.	TC	do.	Washed hoggets' combing. Cold water washed, spouted. No soap or any chemical used.
	E. K. Cox, Rawdon, Mudgee	XE No. 2	Mudgee merino	Washed combing.
	Dangar Bros., Gostwyck, New England	DR over G over New England, No. 465, + 1 super.	Saxon merino	Washed combing, first. 2-year old ewes. Washed with high pressure spouts. A little soap used in hot water soak.
	Do. do.	DE over G over New England, No. 467, + 1 super	do.	Washed combing, second. Same remarks apply.
	A. R. Fremlin, Botany, N.S.W.	ARF over golden fleeces branded FF	Merino	Scoured first combing hoggets. Scoured with a little soap and hot water.
	A. H. Hume, Everton, Poodman Creek, Burrows.	Ex pede Herculeum ...	do. N. P. Bally's	Twelve months growth from shepherd sheep two years old. Washed in cold water.
	R. L. Jenkins, Callandoon	Callandoon over RLJ over 159 AA.	Merino Cox & Bell's	Washed combing. Ordinary clip.
	Do. do.	Callandoon over RLJ over 192 AA.	do.	do. do.
	Do. do.	Callandoon over RLJ over 245 AA.	do.	Washed hoggets, combing. Ordinary clip.
	Do. do.	Callandoon over RLJ over 226 AA.	do.	do. do.
	Andrew Loder, Colley Creek, Quirindi AL No. 4, over Colley	Ck., over No. 4.	Merino	Washed combing.
	Carlo Marina, Moppity, near Young...	C. Marina	Silesian	Washed ewe hoggets' combing.

Class 46—continued.

WASHED WOOL.—COMBING.—continued.

No.	Breeders.	Brand.	Breed.	Description.
	Peel River Land & Mineral Co., Goonoo Goonoo. Do.	PRL & MC in diamond #1. PRL & MC in diamond #2	Australian merino... do.	Washed hoggets' combing. Washed ewe combing.
	Saul Samuel, Collingwood, Liverpool	CWD in diamond over Collingwood, scoured	.....	Scoured combing. Exhibited to show usual style of scouring at Collingwood, Liverpool, N.S.W.
	Do.	CWD in diamond over Collingwood, scoured	.....	Usual style of fellmongery and scouring at Collingwood, Liverpool, N.S.W.
	Do.	ED	Cross bred.....	Scoured combing. Usual style of scouring at Collingwood, Liver- pool, N.S.W.
	Do.	EX	.....	Scoured combing. Usual style of scouring at Collingwood, Liver- pool, N.S.W.
WASHED WOOL.—CLOTHING.				
	E. K. Cox, Rawdon, Mudgee..... Dangar Brothers, Gostwyck, New England	XE..... DR over G over New England, No. 466, + super	Mudgee merino ... Saxon merino	Washed clothing 1st ewes, washed clothing. Washed with high pressure spouts. A little soap used in the hot soak.
	A. R. Fremlin, Botany	F F on golden fleeces...	Merino	1st scoured clothing.
	B. J. Jenkins, Callandoon	Callandoon over RLJ, over 137 AA	Merino, Cox & Bell's	Washed wethers' clothing. Ordinary clip.
	Do.	Callandoon over RLJ, over 161 AA	do.	Washed wethers' clothing. "
	Do.	Callandoon over RLJ, over 185 AA	do.	Washed wethers' clothing. "
GREASY WOOL.—COMBING.				
	John Allen, Stony Creek, Young	JA over 21	Saxon merino	Greasy combing. Fair sample of general clip.
	J. B. Bettington, Brindley Park, Merriwa	BB with H in dia- mond	Australian merino...	Greasy combing. Ewes—ages from two to three years; paddocked.
	Do.	Do.	do.	Greasy ewe hoggets'; thirteen months old; paddocked.

Class 46—continued.

GREASY WOOL—COMBING.—continued.

No.	Breeder.	Brand.	Breed.	Description.
	E. & A. Bowman, Rotherwood, Cassilis. Do. do.	AA with GB in \diamond over Rotherwood HH with GB in dia- mond over Rotherwood GC over Duntroon ...	Saxon merino, with cross of Spanish do. Australian merino	Greasy combing ewes'. Greasy combing hogget ewes'; growth of wool about fourteen months Greasy combing ewes'; eight fleeces, which before skirting averaged 8 lbs. each. Greasy hogget combing, from hoggets of one year, out of Rambouillet ewes by Tasmanian Saxon rams. Greasy ewes' combing. Same as above. 3-year old ewes, with one year's growth of wool. Greasy hogget combing. Paddock-fed. Has suffered in length from the severity of the season. Greasy ewes' combing. Paddock-fed. Greasy hoggets' combing.
	George Campbell, Duntroon	SKS	Rambouillet and Tasmanian merino	
	David H. Campbell, Cunningham Plains Do. do.	Spread eagle..... CY	Rambouillet Merino	
	Clive & Hamilton, Collaroy, Merriwa. Do. do.	CY. ERR	do.	
	Theophilus Cooper, Auburn Vale, Inverell. Do. do.	TC. CX	do.	
	Vincent Dowling, Lowece, Mudgee Do. do.	TC. DW	do.	
	A. Lucan Faithful, Springfield	LUE	do.	Greasy ewes' combing. Greasy combing.
	A. N. Gilbert, Warwillah, Wongonilla R. H. Kennedy, Collingwood, Gunning	FL in diamond Warwillah KY	Pure merino	Greasy hoggets' combing. Greasy ewes' combing. Greasy combing.
	Mrs. Hannah M. Lehane, Beremangnet, via Bowring.	(JL	Lincoln rams, & merino ewes. Merino	Greasy long combing. Greasy combing.
	Geo. L. Lethbridge, Bridgman, Single- ton.	AB	Silesian	Greasy combing. From sheep exposed to all weathers.
	Do. do.	EF	Australian merino do.	do. Paddock-fed for a few weeks.
	Do. do.	GH	do.	do. Paddock-fed for a few weeks.
	Do. do.	Alpha. A	Stud ewe	Greasy hogget, combing. Same remarks as above.
	Andrew Loder, Colley Creek, Quirindi	AL over Colley Ck., No. 3.	Merino	Extra exhibit. Greasy combing.

Class 46—continued.

GREASY WOOL.—COMBING—cont. *nucl.*

No.	Breeder.	Brand.	Breed.	Description.
	Andrew Loder, Colley Creek, Quirindi	AL over Colley Ok., No. 2.	Merino	Greasy combing, hoggets.
	Do. do.	AL over Colley Ok., No. 1.	do.	do. rams.
	Carlo Marina, Moppity, near Young...	O Marina	Silesian and German	Greasy combing.
	Do. do.	Do.	Silesian	Greasy combing, ewe hoggets.
	Do. do.	Do.	do.	do. ram hoggets.
	M'Farland Bros., Barcooga River, Murray.	Plevna	Australian merino..	Greasy rams combing. Five fleeces, rams wool without the bellies and heavy trimmings. Days of growth, eleven months and twelve days.
	John M. L. Macdonald, Wallabadah	M in diamond over Wallabadah.	Merino	Greasy combing.
	Peel River Land and Mineral Co., Goonoo Goonoo.	PRL & MC in diamond #3.	Cox, Mudgee. Australian merino..	Greasy ewes' combing.
	Do. do.	Do. #4	do.	do. Hoggets' growth from ewes one year and eleven months old, wholly fed on natural grasses, paddocked.
	G. M. Simpson	Bon Accord #2	do.	Greasy hoggets' combing. Eleven months' growth from hoggets do.
	Do.	Do. #3	do.	Greasy combing.
	Irie J. Sloan, North Logan, Cowra, N.S.W.	IJS in oval	Merino	Greasy hoggets' combing. Shorn from twelve months old hoggets; paddock fed on natural grasses.
	E. and A. Tindale, Barragan, <i>vid</i> Mudgee.	2 over BB	do.	Greasy combing ewes and wethers. Scarcely twelve months' growth, from 2-year old sheep, paddock-fed on natural grass.
	E. & A. Tindale, Bylong, near Mudgee.	1 over AA	do.	Greasy combing.
	B. J. Traill (Executors of the late), Liangollen	Liangollen over XA ..	do.	Greasy combing, hogget.
	Do. do.	Liangollen over SB ..	do.	

Class 46—continued.

GREASY WOOL.—COMBING—continued.

No.	Breeder.	Brand.	Breed.	Description.
	W. T. Trappitt, Yallundry <i>via</i> Molong Do.	Murrurundrie	Merino	Greasy combing; one year's growth; average of clip. do.
	A. S. Webster, Huntly	Do. BM over Huntly	do. Australian merino..	Greasy combing; paddock-fed on natural grasses; taken from ordinary run of the flocks.
	Do.	Do. No. 175	do.	Greasy combing ewe hoggets. Same remarks.
	J. F. & H. White, Belltrees, Soone ..	WWW	Merino	Greasy combing.
	F. B. White, Harben Vale, Blandford ..	FBW over A	Australian merino..	Greasy combing ewes; twelve months' growth; sheep three years old, paddocked.
	Do.	FRW over B	do.	Greasy combing hoggets; thirteen months' growth; sheep paddocked.
	H. T. Whitty, Teremias	TOW over Teremias ...	do.	Greasy combing; eleven months' growth; grass-fed.
GREASY WOOL.—CLOTHING.				
	James B. Bettington, Brindley Park, Merriwa	BB outside A in dis- mond	Australian merino..	Greasy clothing wool; ewes, ages from two to three year paddocked.
	E. & A. Bowman, Skellatar, Muswell- brook	BB outside GB in ◇ over Rotherwood	Saxon merino with cross of Spanish	Greasy clothing wool; ewes, ages from three to four years; growth of wool about 345 days.
	D. Caspel, Piedmont, Barraba	D Caspel	Merino	Greasy clothing.
	Clive & Hamilton, Collaroy, Merriwa ..	OY ABM	Collaroy merino ...	Greasy clothing; ewes, paddocked and shepherded; taken from ordinary station flocks.
	Vincent Dowling, Lowe, Mudgee	LUE	Merino	Greasy clothing.
	George L. Lethbridge, Bridgman, Sin- gleton	CD	Silesian and Austr- lian merino	Greasy clothing, from sheep shepherded.
	Peel River Land & Mineral Co., Goonoo Goonoo	PRL & M Co. in dia- mond and #5 outside	Australian merino..	Greasy clothing, ewes.
	A. S. Webster, Huntly	BM over Huntly	do.	Greasy clothing, ewe hoggets; taken from ordinary run of clip; sheep paddock-fed on natural grasses.
	Do.	Do No. 96	do.	Greasy clothing, ewe hoggets. Same remarks.

Class 46—continued.

Fourteen bales New South Wales Wool and one bale of Queensland (fifty fleeces in each), shown at R. Goldsborough & Co.'s Exhibition in Melbourne and forwarded thence by the proprietors.

No.	Breeders.	Brand.	Breed.	Description.
1	Lachlan McBean, Woorooma, Deniliquin.	LMB	Merino	Hoggets, 396 days' growth, greasy, combing.
2	Shanahan & Jennings, Warbreccan, Deniliquin.	SJ, Warbreccan	do.	Greasy, ewes, 372 days' growth.
3	James Balfour, Round Hill, Corowa...	Round Hill	do.	do. 382 do.
4	A. Lucian Faithfull, Springfield, Goulburn.	WPF	do.	Greasy, combing, ewes, 355 days' growth.
5	James B. Bettington, Brindley Park, Merriwa.	BB, Brindley Park	do.	do. hoggets, 425 do.
6	John Allen, Stoney Creek, Young.	JA	do.	do. combing, ewes, 365 do.
7	James Balfour, Round Hill, Corowa...	Round Hill	do.	do. lambs.
8	Lachlan McBean, Woorooma, Deniliquin.	LMB	do.	do. combing, wethers, 390 days' growth.
9	E. & A. Bowman, Rotherwood, Cassilis	GB in diamond, over Rotherwood.	do.	do. ewes, 358 and 380 days' growth.
10	Wm. Crozier, Ana Branch, Wentworth	W in oval, over Ana Branch.	do.	do. ewes, 364 days' growth.
11	Alfred N. Gilbert, Warwillah, <i>vis</i> Deniliquin.	Warwillah	do.	do. wethers, 394 do.
12	Dangar, Bros., Goettrycke, Uralla.	DR over G, over New England	do.	do. combing, ewes, 355 do.
13	Clive & Hamilton, Collaroy, Merriwa	CY	do.	do. ewes, 365 do.
14	Shanahan & Jennings, Garrawillah, Liverpool Plains.	SJ over Garrawillah	do.	do. do. 380 do.
15	Shanahan & Jennings, Westbrook, Darling Downs.	SJ over Westbrook	do.	do. hoggets, 350 do.

Class 47.**CHEMICAL PRODUCTS.**

Aerated waters. Barrett & Co., Sydney.

Balsam of aniseed, for coughs, asthma, &c. Hogben, Edward, Sydney.

Castor oil manufactured from seed growing wild on the Clarence River ;
 soap, one case, disinfecting, deodorizing, for hospital and general use ;
 soap, sample of common yellow, manufactured by Layton Frederick,
 Grafton.

Class 49.**LEATHER, SKINS, &c.**

Exhibited by Alderson & Sons, Sydney :—

- 1 enamelled coach hide, 50 ft.
- 1 " buggy " 52 ft.
- 1 " " " coloured, 50 ft.
- 5 " coloured kangaroo skins, for cushions.
- 12 " " " for boots.
- 12 japanned " "
- 12 Levant " large, 18 lbs.
- 12 " " small, 6 lbs.
- 12 " goat skins, 13 lbs.
- 6 calf kids "
- 6 kangaroo kid " small.
- 3 kangaroo skins, with fur on.
- 6 " for gloves.
- 3 coloured morocco from coloured goat skins.
- 3 " roan " sheep "
- 1 japanned buff dash hide, 50 ft.
- 1 " " 48 ft.

Exhibited by Davenport & Alcock, Sydney :—

- 4 sides of export sole leather.
- 6 calf skins.
- 12 patent kangaroo leather.
- 12 enamelled "
- 6 kangaroo for enamelling.
- 12 waxed kangaroo.
- 2 sides tweed leather.
- 12 opossum skins.
- 12 fur kangaroo skins.
- 6 waxed wallaby skins.

GLUE, &c.

- 1. Imitation Russian.
- 2. Imitation French medal.
- 3. London (common) town glue.

Three samples of bone dust.

N.S.W. Commissioners.

- 4. Glue—The Honorable Saul Samuel, C.M.G.

SIXTH GROUP—APPARATUS USED IN THE MECHANICAL INDUSTRIES.

Class 61.

PROCESSES USED IN VARIOUS WORKS, CORKING, &c.

Patent stopper bottles. Barrett & Co., Sydney.

Class 63.

HARNESS AND SADDLERY.

Guerin Patrick, Sydney :—

1 ladies' best buckskin-seated saddle.

1 gent.'s best all-over hogskin saddle.

1 stockman's best bag-leather saddle, with plated bar tree, and ventilated pommels.

1 stockman's best solid flap saddle.

Class 64.

RAILWAY APPARATUS.

Lithograph (mounted on rollers) of Trengrouse's Pioneer Narrow Railway, 1 ft. 6 in. gauge, with patent safety invention to prevent the possibility of trains overturning or in any way getting off the line. This description of railway is suited for any country and would only cost about £3,000 per mile. Trengrouse Nicholas, Marrickville, near Sydney.

SEVENTH GROUP—ALIMENTARY PRODUCTS.

Class 69.

ALIMENTARY AND OTHER PRODUCTS.

Among the vegetable products and manufactures exhibited at Paris are—wheat and flour, maize and maizena, arrowroot, sugar, oranges, and other preserved fruits. All the different branches of husbandry followed in Europe may be carried on under equally favourable conditions in New South Wales, and some parts of the Colony are fitted for the growth of semi-tropical products. Snow is of rare occurrence, excepting on the Southern

Class 69—continued.

Alps and occasionally on the mountain plateaux; and, viewing the country as a whole, there are few localities in which it is absolutely necessary that live stock should be housed, or that special provision should be made to feed them during the winter months. One of the chief hindrances to agriculture has lain in the cost of transporting produce from lands in the interior to the seaboard. Railways have now been made to the verge of the districts considered most suitable for the growth of cereals; and additional impetus is therefore being given to the cultivation of the soil. The average production of wheat is about 20 bushels to the acre, and of maize about 30 bushels; 60 lbs. to 64 lbs. per bushel are not unusual weights for wheat, and from 60 lbs. to 66 lbs. for maize. As the roots of large trees are suffered to remain in the ground, the yield per acre over a large area of only partly cleared land must be proportionately less than in older countries, where the whole available surface is brought under tillage. In exceptionally fertile soils, 120 bushels of maize have been obtained as a first crop, and with good farming, an average of 60 bushels per acre can be secured on first class soils. The cultivation of the sugar-cane is comparatively a new industry. It has been entered upon on the northern rivers, and on the Clarence one Company has established three mills, having an aggregate manufacturing capacity of 7,000 tons during the season. The produce of the crop for 1877 amounted to 10,523,520 lbs. Cotton has been grown, but has not proved remunerative; and while a large extent of country is suitable for the growth of tobacco, the manufacture of the home grown leaf is not sufficiently well understood to enable the agriculturist to supersede the importation of foreign grown leaf, which brings the highest prices in the Australian markets. Fruit trees of many descriptions grow well in New South Wales, and the market of Sydney is well supplied with apples, pears, plums, nectarines, peaches, apricots, currants (imported from Tasmania), cherries, grapes, oranges, lemons, bananas, figs, quinces, guavas, strawberries, mulberries, almonds, walnuts, &c., pineapples and other fruits. All the vegetables most esteemed in Europe are cultivated with success in New South Wales. The value of oranges exported exceeded £50,000 per annum; and there is a large extent of country in which the cultivation of this fruit has been most successful. The export of maize in 1876 was 594,303 bushels; and of wheat and flour the balance of imports over exports was of the value of £467,856. The extent of land under cultivation on the 31st of March, 1876, was 513,840 acres.

Arrowroot, 1 box. Barlow Nicholas, Providence, Richmond River.

Arrowroot, 10 lbs. Cole & Son, Fullerton Farm, Tomago.

Arrowroot, 1 case. Crispin John, Carr's Creek, Grafton.

Class 69—continued.

Arrowroot, 6 lbs. Lauries A., Rawdon Vale.

Arrowroot, 216 packages, "Ewenton Cascade." Mackinnon Ewen, agent for Sharpe & Co., Sydney.

Barley, 1 sample. Grown by Woods T. C., Grafton.

Maize, 1 sample. Grown by Asberry Henry, Grafton.

Maize, "large yellow." Grown by Crispin John, Grafton.

Maize, 1 bushel, "Red Spindle." Exhibited by Colin Ross & Co., Inverell.

Maize, four bags. From the Clarence, Manning, Shoalhaven, and Richmond Rivers. Exhibited by Hill, Ed. S., Point Piper.

Maize, "Golden Drop." Grown by Livingstone Allen, Grafton.

Maizena. Munn A. L., Merimbula.

Maize, various kinds in cob. Murray Archibald, Grafton.

Wheat, 1 bushel, "Golden Drop." Bender John, Grafton.

Wheat, 5 samples.

1. Velvet lammas.
2. White lammas.
3. Red "
4. Golden drop.
5. " " Colin Ross & Co., Inverell.

Wheat, 1 bushel. Dalton Bros., Orange.

Wheat, four samples—

1. Purple straw.
2. White Tuscan.
3. " lammas.
4. Purple straw. Hayes J., Albury.

Wheat, five samples—

1. White wheat grown on chocolate-coloured ground.
2. Red " " red " "
3. White " " chocolate -
4. White " " black "
5. Red " " chocolate

Moore J., Armidale.

Wheat, grown by Hungerford Thomas, M.P., Denman.

Flour, 50 lbs. Dalton Bros., Orange.

Class 69—continued.

Flour. Hungerford Thomas, M.P., Denman.

Flour, 1 bag of 50 lbs. superfine silk-dressed. Lewis Bros., Tamworth.

Flour, 50 lbs. superfine silk-dressed. Nelson Bros., Orange.

Class 70.**FODDER FOR MILITARY CAMPAIGNS.**

Pottie's concentrated animal feed, containing over 30 per cent. of nutriment.

For saving carriage of feed during cavalry marches. Pottie John, veterinary surgeon, Sydney.

Class 71.**MILK, &c.**

Milk preserved, 1 case. Seccombe R., inventor and exhibitor, Milton, Ulladulla, New South Wales.

Class 72.**MEAT, &c.**

Preserved meat, 1 box. Edgill Henry, Launceston.

Preserved meats. Sydney Meat-preserving Company.

Class 73.**VEGETABLES AND FRUITS.**

Oranges preserved in sugar.

Peaches „ water.

Quinces.

Apricots.

Nectarines.

Plums.

Pine apples.

Mulberries.

Elam Squires, Penrith.

Class 74.**CONDIMENTS AND STIMULANTS, SUGAR AND CONFECTIONERY.**

Sugar, grown and refined in Australia.

Sugar, grown and manufactured (not refined) at the Clarence River. Ross

Grafton, Manager for the Sugar-refining Company, Sydney.

Sugar, 1 case, 56 lbs., 1st quality—open pan boiling.

Class 74—continued.

Sugar, 1 case, 56 lbs., 2nd quality or second boiling. Bawden J., Grafton, grower and exhibitor.

Sugar, 56 lbs., 1st quality. Martin George, Grafton, grower and manufacturer.

Sugar, 56 lbs., 2nd quality, grown and refined. Martin George, Grafton.

Sugar, light counter, from 1 year old cane (ribbon), grown and manufactured by Small J. F. junr., Woodford Island.

Vinegar. Barrett & Co., Sydney.

Cordials.

Lime-juice.

Orange and Jersey bitters.

Raspberry vinegar and raspberry balm.

Extract of sarsaparilla. Barrett & Co., Sydney.

Class 75.**FERMENTED DRINKS, WINES, &c.**

Cider.

Cherry brandy.

Ginger wine.

Orange wine. Barrett & Co.

WINE.

There is scarcely a district in which the grape-vine does not flourish ; and there is reason to suppose that the production of wine will become one of the great industries of the Country. Dr. Lindemann remarks :—" The soil and climate of many parts of New South Wales are eminently adapted to viticulture ; from the Murray in the south to the Clarence in the north there are few places where the vine will not flourish, yielding wines in great variety and of rare quality. Many of the wines grown on the Murray are rich and alcoholic, surpassing in these qualities the wines of Portugal ; while others, with their soft luscious fulness and delicate flavour, rival the first growths of the far-famed Constantia. Again, the wines grown upon the Hunter and more northern rivers are light, dry, and fragrant, bearing close resemblance to the sauternes, clarets, and burgundies of France. And there can be little doubt that the produce of the vine in the not very distant future will become a valuable export." The quality of the manufacture has steadily improved. The produce for 1877 was 799,709 gallons, and the total produce of the vineyards would include about 3,000 gallons of brandy and upwards of 1,000 tons of fruit for home consumption and export to the adjoining Colonies. -

Class 75—continued.

WINE.

Grower—Katherine H. Barker. Locality—Maryland, Bringley.

Variety of Grape.	Vintage.	Colour.	Character.	Price.	Information as to Soil, &c.
Hermilage.....	1872-73.....	Red.....	.....	25s. per dozen, in cases.....	Obtained prize at Melbourne Exhibition.
Verdelho.....	1872-73.....	White.....	.....	25s. " " " " " "	" " " " " "
Grower—H. J. Bouffier & Son, Sydney.					
Verdelho.....	1876.....	White.....	Light and dry.....	25s. per doz. qts. or 7a. 6d. per gal.	
Pineau.....	1876.....	".....	".....	25s. " " " " " "	
Relaing.....	1875.....	".....	Light and sweet.....	15s. " " " " " "	
				21s. " " " " " "	
Grower—Carl J. P. Brecht. Locality—Rosemount, Denman.					
Shepard Relaing.....	1872.....	White.....	Light.....	35s. per dozen.	
Madeira.....	1876.....	".....	Full-bodied.....	25s. " " " " " "	
Hermilage.....	1876.....	Red.....	".....	qts. or 8s. per gal.	
Hermilage and Burgundy.....	1875.....	".....	Light.....	25s. " " " " " "	
Muscatel.....	1876.....	White.....	Full-bodied.....	30s. " " " " " "	
Grower—Frederick Buckholz. Locality—Frederickburgh Vineyard, Mudjee.					
Burgundy.....	1876.....	Red.....	Fruity port.....	60s. per dozen.	
Hermilage.....	1876.....	".....	".....	40s. " " " " " "	
Verdelho.....	1875.....	Amber.....	Dry, full-bodied, & good flavour.....	80s. " " " " " "	
".....	1876.....	".....	Fruity, good body, and excellent flavour.....	40s. " " " " " "	
Grower—G. and J. B. Carmichael. Locality—Porphyr, Seaham.					
Relaing.....	1869.....	White.....	Full-bodied.....	30s. per dozen.	
".....	1870.....	".....	Light.....	20s. " " " " " "	
Madeira.....	1872.....	".....	".....	30s. " " " " " "	
Relaing.....	1872.....	".....	".....	20s. " " " " " "	
Madeira.....	1875.....	".....	".....	25s. " " " " " "	
".....	1876.....	".....	Full-bodied.....	30s. " " " " " "	

Class 75—continued.

WINE—(Continued).

Grower—A. E. Davis & Co. Locality—Coonoombah, Lochinvar.

Variety of Grape.	Vintage.	Colour.	Character.	Price.	Information as to Soil, &c.
Red Hermitage.....	1876.....	Red	Full-bodied.....	24s. per dozen.....	Must purchased by us when six months old.
Vindot.....	1876.....	Red	Light.....	24s. ".....	
Burgundy.....	1876.....	White	Full-bodied.....	24s. ".....	
Pineau-blanc.....	1876.....	"	Light dry.....	21s. ".....	
Austrian.....	1876.....	"	".....	18s. ".....	
Tolle-blanc.....	1876.....	"	".....	".....	

Grower J. F. and J. Doyle. Locality—Kaludah, Lochinvar.

Verdello.....	1873.....	White	Light.....	21s. per dozen.....	
Reisling.....	1873.....	"	".....	21s. ".....	
Burgundy.....	1875.....	Red	".....	21s. ".....	
Hermitage.....	1875.....	"	Full-bodied.....	21s. ".....	

Grower—W. Fowler. Locality—Campbelltown.

Reisling.....	1872.....	White	Dinner wine.....	23s. per dozen.....	
Madeira or Verdello.....	1872.....	Brown	".....	23s. ".....	
Hermitage.....	1876.....	Very dark red..	Fruity wine, but young	26s. ".....	

Grower—John Glennie. Locality—Orindinna, Gresford, Paterson.

Verdello or Madeira.....	1876 and 1877.....	White	Full-bodied.....	21s. per doz. quarts or 6s. per gal.	
".....	1876 and 1876.....	"	".....	5s. ".....	
" and Reisling.....	1874 and 1875.....	"	Light Hook.....	15s. ".....	
Red Hermitage.....	1875 and 1876.....	Red	Medium-bodied.....	18s. ".....	
".....	1876 and 1877.....	"	Full-bodied.....	18s. ".....	

E. Greer & Co., Sydney.

Shiraz.....	1873.....	Red	Fruity.....		
Ancarot.....	1875.....	White	".....		

Class 75—continued.

WINE—(continued).

Grower—J. B. Holmes. Locality—The Wilderness, Rothbury, Braxton.

Variety of Grape.	Vintage.	Colour.	Character.	Price.	Information as to Soil, &c.
1. Hermitage	1876	Red	Full-bodied	8s. per gallon	These wines are all made by partially corporeating the must, there being no spirit of any kind added, and are guaranteed to keep on draught.
2. "	1877	"	Full-bodied sweet	9s. "	
3. "	1877	"	"	8s. "	
4. Muscat	1873	Light red	"	7s. "	
5. Madeira	1874	"	Full-bodied dry	7s. "	
6. Shiraz	1874	Straw-coloured	"	6s. "	

Grower—James Kilman. Locality—Kirkton, Braxton, Hunter River.

Red Hermitage	1869	Red	Full-bodied	40s. per dozen quarts	Vintage good. Crop, 400 gallons per acre; soil pure sand.
White Hermitage	1869	White	"	40s. "	"
Vendalho	1872	Red	Light	38s. "	" rather wet. "
Red Hermitage	1872	White	Full-bodied	24s. "	"
Vendalho	1874	Red	Light	24s. "	" very wet. "
Vendot	1874	Red	"	24s. "	"
Red Hermitage	1875	White	Full-bodied	24s. "	"
Vendalho	1875	Red	Light	24s. "	"
Vendot	1875	White	Full-bodied	24s. "	"
Red Hermitage	1876	Red	Light	24s. "	"
"	1876	"	"	24s. "	"

Grower—Charles McKay, M.D. Locality—Minchinbury, Eastern Creek.

Hermitage	1876	Red	Full-bodied	5s. per gallon	
Jambruscat	1876	White	"	6s. "	
Madeira	1876	"	"	5s. 6d. "	
Retailing	1876	"	"	"	

Grower—The Honorable Sir William Macarthur, M.L.C. Locality—Camden.

Muscat or Frontignac	1876	Purplish pink	Rich, sweet, very fragrant—a vin de liqueur	Too new for market	Bottled, February, 1878; ought to have been another year in bottle.
Riesling	1876	Pale straw	Light, dry, and fragrant	Not in the market	Bottled, February, 1878; improves with age.
"	1867	"	Light, with considerable bouquet	"	Bottled, 1875.

Class 75—continued.

WINE—(continued).

Grower—Hon. W. Macleay, M.L.C. Locality—Wolonjerrie, Wagga Wagga, Murrumbidgee.

Variety of Grapes.	Vintage.	Colour.	Character.	Price.	Information as to Soil, &c.
Shiraz or Red Hermitage..	1871	Red .....	.....	24s. per dozen.	
" "	1872 .....	" .....	.....	" "
" "	1873 .....	" .....	.....	" "
Reisling	1872	White .....	.....	" "
" "	1873 .....	" .....	.....	" "
Gonais .....	.....	" .....	.....	16s.	
Ancarot .....	.....	" .....	.....	30s.	
Malbec	" "	Red .....	.....	36s.	

Grower—A. Munro. Locality—Bebeah, Singleton.

Verdot	1876	Red	Light	15s. per dozen	2,000 gallons in stock
Mixed Red Grapes	1876	"	Light	" "	4,000 "
Hermitage	1876	"	Light	" "	200 dozen "
" "	1876	"	Full-bodied	" "	8,000 gallons "
Malbec	1876	"	Sweet	25s.	100 "
Pinetan	1876	White	Full-bodied	15s.	2,000 "
Shiraz	1876	"	"	" "	2,000 "
Verdello	1875	"	Medium body	" "	1,000 "

All these wines are the pure
juice of the grape by natural
fermentation, except port, to
which 5 per cent. of spirit
made from wine is added.

Grower—Montague Parnell. Locality—West Maitland.

Red Hermitage	1874	Dark red	Full-bodied	24s. per dozen	Bottled six months, December, 1877.
" "	1875	"	"	24s.	In casks.
Red Mixed Grapes	1875	Red	Medium sweet	24s.	" "
Madeira	1873 or 76	Dark amber	Very full-bodied	50s.	" "
Reisling	1873	Light	Dry	24s.	Must was 31° Keene's Saccharometer.
Reisling & Madeira, mixed	1873	"	"	24s.	" "

N.B.—The whole of these wines are warranted not to have been fortified by any kind of spirit.

Grower—Edward Powell. Locality—Richmond.

Reisling, with a few others. Mixed.	1872	White	Sherry	20s. per dozen	Grown on right bank of the Hawkesbury River.
-------------------------------------	------------	-------------	--------------	----------------	--

Class 75—continued.

WINE—(continued).

Grower—Jacob Leitz. Locality—Imminthal, Inverell.

Variety of Grapes.	Vintage.	Colour.	Character.	Price.	Information as to Soil, &c.
Hermitage	1877	Red	Strong full-bodied	7s. per gallon	Well cultivated in loamy black soil.
Madaira	1877	White	Sweet	8s. "	" " "
Grower—George H. Stephens. Locality—Ivanhoe Vineyard, Pokolbin Hills, Hunter River.					
Hermitage	1875	Dark red	Full-bodied, dry	Not for sale.	
Malbec	1876	"	"	"	
Hermitage	1876	"	"	"	
Grower—A. F. Wilshire. Locality—Winbourn, Mulgoa.					
Frontignac	1873	Bright	"	16s. per doz., bottled, Oct., 1876	} Pure natural wines. Age dates from February in each year.
Verdelho	1874	"	"	16s. " " " " July, 1877	
Reisling	1874	"	"	16s. " " " " " " "	
Grower—Wadham Wyndham. Locality—Bukkulla, Inverell.					
Hermitage	1872	Red	Full-bodied	"	} Made in an iron cellar exposed to all the fluctuations of the climate, which ranges from 108° in summer to 30° Fahrenheit in winter. Bottled one year. Never been out of the cellar, which is above ground.
Grower—R. L. Jenkins. Locality—County of Camden.					
Verdelho	1867	Light	Dry, sound, good bouquet	"	} Bottled, 1870.
Verdelho and Muscat	1870	"	Dry, sound, Muscat flavour	"	
Grower—Valentine Klaus. Locality—Clarence River.					
Burgundy .....	.....	Red	"	"	} Yield 1,000 gallons per acre.
Reisling .....	.....	White	"	"	

Class 76.

HORSE-SHOES in general use. Dodd Edward, Sydney, manufacturer and exhibitor.

RETURN TO the circulation desk of any

University of California Library

or to the

NRLF
NORTHERN REGIONAL LIBRARY FACILITY

Bldg. 400, Richmond Field Station

University of California

Richmond, CA 94804-4698

ALL BOOKS MAY BE RECALLED AFTER 7 DAYS

2-month loans may be renewed by calling

(415) 642-6753

1-year loans may be recharged by bringing books
to NRLF

Renewals and recharges may be made 4 days
prior to due date

DUE AS STAMPED BELOW

AUG 13 1990

SENT ON ILL

JUN 17 1996

U. C. BERKELEY

YC 67909

12795

T802
G1A8

THE UNIVERSITY OF CALIFORNIA LIBRARY

